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ABSTRACT

This report is the seventh in an annual series reporting the drug use and related attitudes of America's high school seniors; the findings come from an ongoing national research and reporting program, "Monitoring the Future: A Continuing Study of Lifestyles and Values of Youth," also known as the High School Senior Survey. Data on two major topics are reported: current prevalence of drug use among high school seniors (especially illicit drug use), and trends in use since 1975. Also reported are data on grade of first use, trends in use at earlier grade levels, intensity of drug use, seniors' attitudes and beliefs concerning various types of drug use, and their perceptions of certain relevant aspects of the social environment. Eleven separate classes of drugs are distinguished, including marijuana, inhalents, hallucinogens, cocaine, heroin, natural and synthetic opiates other than heroin, stimulants, sedatives, tranquilizers, alcohol, and cigarettes. The report also includes sections dealing with the use of non-prescription stimulants such as diet pills, stay-awake pills, and psuedo-amphetamines, and trends in use at the higher frequency levels gathered from reports of the duration and intensity of the highs experienced by drug type. Numerous tables and figures illustrate the results. (MCF)

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National Institute on Drug Abuse

Highlights From

DRUGS AND AMERICAN HIGH SCHOOL STUDENTS 1975-1983

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Alcohol, Drug Abuse, and Mental Health Administration

Highlights From

DRUGS AND AMERICAN HIGH SCHOOL STUDENTS 1975-1983

by
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INTRODUCTION

This report is the seventh in an annual series reporting the drug use and related attitudes of America's high school seniors. The findings, which cover the high school classes of 1975 through 1983, come from an ongoing national research and reporting program entitled Monitoring the Future: A Continuing Study of the Lifestyles and Values of Youth. The program is conducted by the University of Michigan's Institute for Social Research, and is funded primarily by the National Institute on Drug Abuse. The study is also referred to as the High School Senior Survey, since the population from which each year's sample is drawn is comprised of all seniors in public and private high schools in the coterminous United States.

The larger volume, from which this document presents only the highlights of findings, is to be published soon by the National Institute on Drug Abuse under the title Drugs and American High School Students: 1975-1983. That larger volume is the fourth in a series of considerably more detailed reports, the last being Student Drug Use in America: 1975-1981. In addition to presenting a full chapter of detailed findings for each of the various classes of drugs, each larger volume contains chapters on attitudes and beliefs about drugs and various relevant aspects of the social milieu, as well as several appendices dealing with validity, sampling error estimation, and survey instrumentation.*

Content Covered in this Report

Two of the major topics to be treated here are the current prevalence of drug use among American high school seniors, and trends in use since 1975. Also reported are data on grade of first use, trends in use at earlier grade levels, intensity of drug use, attitudes and beliefs among seniors concerning various types of drug use, and their perceptions of certain relevant aspects of the social environment.

The eleven separate classes of drugs distinguished are marijuana (including hashish), inhalants, hallucinogens, cocaine, heroin, natural and synthetic opiates other than heroin, stimulants, sedatives, tranquilizers, alcohol, and cigarettes. (This particular organization of drug use classes was chosen to heighten comparability with a parallel series of publications based on national household surveys on drug abuse.) Separate statistics are also presented here for several sub-classes of drugs: PCP and LSD (both hallucinogens), barbiturates and methaqualone (both sedatives) and the amyl and butyl nitrites (both inhalants).

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*Those interested in obtaining a copy free of charge may write to the National Clearinghouse for Drug Abuse Information, National Institute on Drug Abuse, 5600 Fishers Lane, Rockville, Maryland 20857.

PCP and the nitrites were added to our measurement for the first time in 1979 because of increasing concern over their rising popularity and possibly deleterious effects; trend data are thus only available for them since 1979. Barbiturates and methaqualone, which constitute the two components of the "sedatives" class as used here, have been separately measured from the outset. They have been presented separately because their trend lines are substantially different.

Except for the findings on alcohol, cigarettes, and non-prescription stimulants, practically all of the information reported here deals with illicit drug use.* Respondents are asked to exclude any occasions on which they used any of the psychotherapeutic drugs under medical supervision. (Some data on the medically supervised use of such drugs are contained in the full 1977, 1978, 1981, and 1984 volumes.)

In 1982 we added a special section, under "Other Findings from the Study," dealing with the use of non-prescription stimulants, including diet pills, stay-awake pills, and the "look-alike" pseudo-amphetamines. Questions on these substances were placed in the survey beginning in 1982 because the use of such substances appeared to be on the rise, and also because their inappropriate inclusion by some respondents in their answers about amphetamine use were affecting the observed trends. This year we present some trend results on those non-prescription substances, separately.

The "Other Findings from the Study" section also presents the results from a set of questions on the use of marijuana at a daily or near-daily level. These questions were added to enable us to develop a more complete individual history of daily use over a period of years, and they reveal some very interesting facts about the frequent users of this drug.

We have chosen to focus considerable attention on drug use at the higher frequency levels rather than simply reporting proportions who have ever used various drugs. This is done to help differentiate levels of seriousness, or extent, of drug involvement. While we still lack any public consensus of what levels of use constitute "abuse," there is surely a consensus that higher levels of use are more likely to have detrimental effects for the user and society than are lower levels. We have also introduced indirect measures of dosage per occasion, by asking respondents the duration and intensity of the highs they usually experience with each type of drug. One section of this report deals with those results.

Purposes and Rationale for this Research

Perhaps no area is more clearly appropriate for the application of systematic research and reporting than the drug field, given its rapid rate of change, its importance for the well-being of the nation, and the amount of legislative and administrative intervention addressed to it.

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*Actually, purchase and use of the butyl nitrites remain legal and unregulated at the present time.

Young people are often at the leading edge of social change; and this has been particularly true in the case of drug use. The surge in illicit drug use during the last two decades has proven to be primarily a youth phenomenon, with onset of use most likely to occur during adolescence. From one year to the next particular drugs rise or fall in popularity, and related problems occur for youth, for their families, for governmental agencies, and for society as a whole. This year's findings show that considerable change is continuing to take place.

One of the major purposes of the Monitoring the Future series is to develop an accurate picture of the current situation and of current trends. A reasonably accurate assessment of the basic size and contours of the problem of illicit drug use among young Americans is an important starting place for rational public debate and policymaking. In the absence of reliable prevalence data, substantial misconceptions can develop and resources can be misallocated. In the absence of reliable data on trends, early detection and localization of emerging problems are more difficult, and assessments of the impact of major historical and policy-induced events are much more conjectural.

The Monitoring the Future study has a number of purposes other than prevalence and trend estimation—purposes which are not addressed in any detail in this volume. Among them are: gaining a better understanding of the lifestyles and value orientations associated with various patterns of drug use, and monitoring how those orientations are shifting over time; determining the immediate and more general aspects of the social environment which are associated with drug use and abuse; determining how drug use is affected by major transitions in social environment (such as entry into military service, civilian employment, college, unemployment) or in social roles (marriage, parenthood); distinguishing age effects from cohort and period effects in determining drug use; determining the effects of social legislation on all types of drug use; and determining the changing connotations of drug use and changing patterns of multiple drug use among youth. Readers interested in publications dealing with any of these other areas should write the authors at the Institute for Social Research, Rm. 2030, The University of Michigan, Ann Arbor, Michigan 48109.

Research Design and Procedures

The basic research design involves data collections from high school seniors during the spring of each year, beginning with the class of 1975. Each data collection takes place in approximately 125 to 140 public and private high schools selected to provide an accurate cross-section of high school seniors throughout the United States.

Reasons for Focusing on High School Seniors. There are several reasons for choosing the senior year of high school as an optimal point for monitoring the drug use and related attitudes of youth. First, the completion of high school represents the end of an important developmental stage in this society, since it demarcates both the end of universal public education and, for many, the end of living in the parental home. Therefore, it is a logical point at which to take stock of the cumulated influences of these two environments on American youth.

Further, the completion of high school represents the jumping-off point from which young people diverge into widely differing social environments and experiences. Finally, there are some important practical advantages to building a system of data collections around samples of high school seniors. The need for systematically repeated, large-scale samples from which to make reliable estimates of change requires that considerable stress be laid on efficiency as well as feasibility. The last year of high school constitutes the final point at which a reasonably good national sample of an age-specific cohort can be drawn and studied economically.

One limitation in the design is that it does not include in the target population those young men and women who drop out of high school before graduation—between 15 and 20 percent of each age cohort. The omission of high school dropouts does introduce biases in the estimation of certain characteristics of the entire age group; however, for most purposes, the small proportion of dropouts sets outer limits on the bias. Further, since the bias from missing dropouts should remain just about constant from year to year, their omission should introduce little or no bias into the various types of change being estimated for the majority of the population.* Indeed, we believe the changes observed over time for those who finish high school are likely to parallel the changes for dropouts in most instances.

Sampling Procedures. A multi-stage procedure is used for securing a nationwide sample of high school seniors. Stage 1 is the selection of particular geographic areas, Stage 2 the selection of one or more high schools in each area, and Stage 3 the selection of seniors within each high school.

This three-stage sampling procedure yielded the following numbers of participating schools and students:

	Class of 1975	Class of 1976	Class of 1977	Class of 1978	Class of 1979	Class of 1980	Class of 1981	Class of 1982	Class of 1983
Number public schools	111	108	108	111	111	107	109	116	112
Number private schools	14	15	16	20	20	20	19	21	22
Total number schools	125	123	124	131	131	127	128	137	134
Total number students	15,791	16,678	18,436	18,924	16,662	16,524	18,267	18,348	16,947
Student response rate	78%	77%	79%	83%	82%	82%	81%	83%	84%

*An examination of U. S. Census data shows that the proportion of all American 16-to 24-year-olds who are not high school graduates, nor actively enrolled in school, remained virtually constant (at about 15%) between 1970 and 1980. (Bureau of the Census, "School Enrollment—Social and Economic Characteristics of Students," Series P-20, various years).

Questionnaire Administration. About ten days before the administration students are given flyers explaining the study. The actual questionnaire administrations are conducted by the local Institute for Social Research representatives and their assistants, following standardized procedures detailed in a project instruction manual. The questionnaires are administered in classrooms during a normal class period whenever possible; however, circumstances in some schools require the use of larger group administrations.

Questionnaire Format. Because many questions are needed to cover all of the topic areas in the study, much of the questionnaire content is divided into five different questionnaire forms (which are distributed to participants in an ordered sequence that insures five virtually identical subsamples). About one-third of each questionnaire form consists of key or "core" variables which are common to all forms. All demographic variables, and nearly all of the drug use variables included in this report, are included in this "core" set of measures. Many of the questions dealing with attitudes, beliefs, and perceptions of relevant features of the social milieu are contained in only a single form, however, and are thus based on one-fifth as many cases (i.e., approximately 3,500 respondents).

Representativeness and Validity

School Participation. Schools are invited to participate in the study for a two-year period, and with only very few exceptions, each school in the original sample, after participating for one year of the study, has agreed to participate for a second year. Thus far, from 66 percent to 80 percent of the original schools invited to participate have agreed to do so each year; for each school refusal, a similar school (in terms of size, geographic area, urbanicity, etc.) is recruited as a replacement. The selection of replacement schools almost entirely removes problems of bias in region, urbanicity, and the like, that might result from certain schools refusing to participate. Other potential biases are more subtle, however. If, for example, it turned out that most schools with "drug problems" refused to participate, that would seriously bias the sample. And if any other single factor were dominant in most refusals, that also might suggest a source of serious bias. In fact, however, the reasons for a school refusing to participate are varied and are often a function of happenstance events; only a small proportion specifically object to the drug content of the survey. Thus we feel fairly confident that school refusals have not seriously biased the surveys.

Schools are selected in such a way that half of each year's sample is comprised of schools which participated the previous year, and half is comprised of schools which will participate the following year. We make use of this staggered half-sample feature of the design to check on possible biases in the year-to-year trend estimates derived from the full samples. Specifically, separate sets of one-year trends are computed using first that half sample of schools which participated in both 1975 and 1976, then the half-sample which participated in both 1976 and 1977, and so on. Thus, each one-year trend estimate derived in this way is based on a set of about 65 schools. When the resulting

trend data (examined separately for each class of drugs) are compared with trends based on the total sample of schools, the results are highly similar, indicating that the trend estimates are little affected by turnover or shifting refusal rates in the school samples. (The absolute prevalence estimates for a given year are not as accurate using just the half-sample, of course.)

Student Participation. Completed questionnaires are obtained from 77% to 83% of all sampled students in participating schools each year. The single most important reason that students are missed is absence from class at the time of data collection; in most cases it is not workable to schedule a special follow-up data collection for absent students. Students with fairly high rates of absenteeism also report above-average rates of drug use; therefore, there is some degree of bias introduced into the prevalence estimates by our missing the absentees. Much of that bias could be corrected through the use of special weighting; however, we decided not to do so because the bias in overall drug use estimates was determined to be quite small, and because the necessary weighting procedures would have introduced undesirable complications (Appendix A of the full reports provides a discussion of this point). Of course, some students are not absent from class, but simply refuse when asked to complete a questionnaire. However, the proportion of explicit refusals amounts to only about 1 percent of the target sample.

Sampling Accuracy of the Estimates. For purposes of this introduction, it is sufficient to note that drug use estimates based on the total sample have confidence intervals that average about ±1% (as shown in Table 1, confidence intervals vary from ±2.1% to smaller than ±0.3%, depending on the drug). This means that had we been able to invite all schools and all seniors in the 48 coterminous states to participate, the results from such a massive survey should be within about one percentage point of our present findings for most drugs at least 95 times out of 100. We consider this to be a high level of accuracy, and one that permits the detection of fairly small changes from one year to the next.

Consistency and the Measurement of Trends. One other point is worth noting in a discussion of the validity of our findings. The Monitoring the Future project is, by intention, a study designed to be sensitive to changes from one time to another. Accordingly, the measures and procedures have been standardized and applied consistently across each data collection. To the extent that any biases remain because of limits in school and/or student participation, and to the extent that there are distortions (lack of validity) in the responses of some students, it seems very likely that such problems will exist in much the same way from one year to the next. In other words, biases in the survey estimates will tend to be consistent from one year to another, which means that our measurement of trends should be affected very little by any such biases. The smooth and consistent nature of most trend curves reported for the various drugs provides rather compelling empirical support for this assertion.

A Caution about the Stimulant Results

In reporting their psychotherapeutic drug use, respondents are instructed to exclude not only medically-supervised use, but also any use of over-the-counter (i.e., non-prescription) drugs. However, in recent years some of those reporting stimulant (amphetamine) use have erroneously been including the use of over-the-counter stay-awake and diet pills, as well as other pills intentionally manufactured to look like amphetamines, and sold under names which sound like them, but which contain no controlled substances. (Legislative and enforcement efforts are now under way in many states to stop the manufacture and mail-order distribution of these latter "look-alike, sound-alike" pseudo-amphetamines.) The advertising and sale of over-the-counter diet pills (most of which contain the mild stimulant phenylpropanolamine, and some of which also contain caffeine) have burgeoned in recent years, as has also been true for the "sound-alike, look-alike" pills (most of which contain caffeine). We believe that the inappropriate inclusion of these non-controlled stimulants in the responses to our surveys accounts for much of the observed sharp rise in reported "amphetamine" use in 1980 and 1981. Therefore, the reader is advised to view the unadjusted amphetamine-use statistics for those years with some caution.

In the 1982 survey, we introduced some new questions on the use of both controlled and non-controlled stimulants. (We also kept the old version of the question in two questionnaire forms so that it would be possible to "splice" the trend lines resulting from the old and new questions.) Since 1982 we have included statistics on "amphetamines, adjusted"—which are based on these new questions. We think these have been successful at getting respondents to exclude over-the-counter stimulants and those "look-alike" stimulants which the user knows are look-alikes. However, as is true with several other drug classes, the user may at times be ingesting a substance other than the one he or she thinks it to be. Thus, some erroneous self-reports of "amphetamine" use may remain.

An upward bias from the inclusion of over-the-counter and look-alike stimulants affects not only the stimulant (amphetamine) trend statistics, but also trend statistics for the composite index entitled "use of any illicit drug other than marijuana." Since this index has been used consistently in this monograph series to compare important subgroups (such as those defined by sex, region, college plans, etc.) we have also included an adjusted value based on calculations in which amphetamines have been excluded. In other words, this adjusted statistic reflects "use of any illicit drugs other than marijuana or amphetamines," and is included to show what happens when amphetamine use—and any upward biases in trends it might contain—is excluded from the trend statistics since 1975. Another adjusted statistic is also included beginning in 1982, which gives our best estimate of overall illicit drug use, including the use of real amphetamines. It uses the revised amphetamine question which was first introduced in 1982.

It is worth noting that the two classes of drug use which are not actually amphetamine use, but which may be inadvertently reported as amphetamine use, reflect two quite different types of behavior. Presumably most users of over-the-counter diet and stay-awake pills are using them for functional reasons and not for recreational purposes.

On the other hand, it seems likely that most users of the look-alike pseudo-amphetamines are using them for recreational purposes. (In fact, in many cases the user who purchased them on the street may think he or she has the real thing.) Thus, the inclusion of the look-alikes may have introduced a bias in the estimates of true amphetamine use, but not in the estimates of a class of behavior—namely, trying to use controlled stimulants for recreational purposes. Some would argue that the latter is the more important factor to be monitoring in any case.

OVERVIEW OF KEY FINDINGS

The results presented in this report are based on large, representative sample surveys of the last nine graduating classes enrolled in public and private high schools across the United States. The following is a synopsis of the most important findings to emerge in the 1983 surveys:

- This year's findings suggest that the decline in overall illicit drug use, which began a couple of years ago, is real and continuing. Current use of an illicit drug (that is, some use in the past 30 days of one or more illicit drugs) is down to 32% in 1983 from a peak level of 39% in 1979. (It stood at 34% in 1982.) Annual prevalence (the proportion reporting any use in the prior year) dropped from 54% to 49% over the same four-year interval. Lifetime prevalence is down less over that interval, suggesting that an increased rate of quitting is in part responsible for the decline.

- Much of this decline is attributable to an ongoing drop in the use of the most popular of the illicit drugs, marijuana, for which current use has dropped from 37% in 1979 to 27% in 1983 and annual prevalence has dropped from 51% to 42% over the same interval.

- However, the proportion of seniors reporting the use of illicit drugs other than marijuana has also been dropping since 1981. Between 1982 and 1983 annual prevalence for this class of behavior dropped from 30% to 28% (adjusted—see discussion in prevalence section).

- Among the specific drugs which showed the greatest declines in use this year were amphetamines (prescription-controlled stimulants), methaqualone, and LSD. Of the classes of drugs which are illicitly used, amphetamines are the second most prevalent after marijuana. That, plus the fact that their use appeared to have been rising from 1975 through 1981, makes their decline from 20% annual prevalence (adjusted) in 1982 to 18% in 1983 particularly important. Methaqualone also reached its peak in 1981, at 8% annual prevalence, but was down to 5% by 1983. LSD use, which has remained level throughout most of the study, also began to show a modest decline in 1983.

- Certain other drugs continued a gradual long-term decline. For example, the annual prevalence of barbiturate use in 1983 is 5%, less than half what it was in the peak year of 1975 (11%). And the annual prevalence of tranquilizer use is down from a peak of 11% in 1977 to 7% in 1983. The annual prevalence of PCP use stands at under 3% in 1983, down from a peak

level of 7% in 1979 (though it actually rose a slight, but not statistically significant, amount in 1983).

- Not all drugs showed a decline in 1983. Inhalant use, for example, has remained fairly stable since 1980, though at low absolute levels (i.e., an annual prevalence of 4% in 1983). Heroin use, which did drop by roughly one-half between 1975 and 1979, has not changed appreciably since. (Annual prevalence in 1983 stands at 0.6%.) And the use of opiates other than heroin remained unchanged in 1983, although it dropped slightly in 1982 (to an annual prevalence of 5%).

- Among the most important changes observed over the interval of 1975-1983 have been those found for daily marijuana use (defined as use on twenty or more occasions in the past thirty days). Between 1975 (when this study began) and 1978, daily marijuana use climbed rapidly and steadily from 6% to 11% of all seniors. Since 1978, however, there has been just about as precipitous a fall in daily use, as young people's concerns about the consequences of regular use have grown and peer acceptance has fallen. (Some 63% now attribute great risk to regular marijuana use, up from 35% in 1978; and in 1983 fully 83% of all seniors said they personally disapproved of regular marijuana use, up from 68% in 1978. Some 78% think their friends would disapprove of such behavior.) This year, active daily use is down to its lowest point since the study began, at 5.5%, or about half of its peak level in 1978.

  Some questions which were newly introduced in 1982 showed that our measure of current daily marijuana use considerably understates the number who have been daily users at some time. In 1982, some 20% of the sample said they had smoked marijuana daily, or near daily, continuously for a month or more at some time in their lives. (See the section on "Other Recent Findings from the Study".) This somewhat startling statistic also dropped in 1983, to 17%. Note that this is three times the current daily marijuana use figure.

- Another drug of great concern at present is cocaine. In this series of surveys the annual prevalence of cocaine more than doubled between 1975 and 1979 and then leveled off in 1980 and 1981 at 12%. The prevalence rates in 1982 and 1983 were both 11%, suggesting that the period of dramatic increase is over. However, other statistics on drug-related medical emergencies and treatment demand suggest that the "casualties" from the earlier period of very rapid increase are still rising. We interpret this in part to be due to the time lag between initiation and the development of a pattern of use, and resulting experiences, which give rise to events discernible in such social agency statistics.

Findings (published elsewhere) from the panel follow-ups of past graduating classes in this study show that the incidence of cocaine use in these recent classes continued to rise sharply in the years after high school, giving this drug the latest age-of-onset pattern of any studied here.

It is of interest to note that the Western and Northeastern regions of the country have annual prevalence rates for cocaine which are roughly twice those of the South and North Central regions, yielding one of the greatest regional differences found for any drug.

- The greater moderation by American young people in their use of illicit drugs is evidenced not only by the fact that fewer are using most types of drugs, but also by the fact that, even among the users of many of these classes, use appears to be less intense. Since 1975 there has been a drop in the degree and/or duration of the "highs" reported by users for marijuana, stimulants, cocaine, sedatives, hallucinogens, and opiates other than heroin. To take another measure, in 1976, 65% of those who reported using marijuana in the prior year said they averaged less than one "joint" per day, versus 76% of such users in 1983.

- The prevalence of the several classes of non-prescription stimulants was estimated for the first time in 1982. (See the last section of this report.) The look-alike pseudo-amphetamines, which were virtually non-existent a few years ago, have attained a fair-sized market in just a few years. Lifetime prevalence in 1983 is 15%, monthly prevalence 5%, and daily prevalence 0.4%. These numbers are down only slightly from last year.

- Over-the-counter diet pills have been used by a sizeable proportion of seniors (31% lifetime prevalence and 10% in just the prior month). Use is particularly high among females: 45% lifetime prevalence, 14% in the last month, and 1.6% current daily use. (All other stimulants, including amphetamines, are used by roughly equal proportions of both sexes.)

- Stay-awake pills sold over-the-counter are used by fewer seniors: 20% lifetime prevalence, and 5% in the last month. While such pills may be used to stay awake for studying, the prevalence of their use is not appreciably higher among the college-bound.

- Turning to the two major licit drugs, alcohol use has remained relatively stable in this population since 1975, though at high levels. Nearly all young people have tried alcohol by the end of their senior year (93%) and the great majority (69%) have used in the prior

month. Daily drinking is at about the same level in 1983 (5.3%) as it was in 1975 (5.7%), but this reflects some drop from a peak level in 1979 of 6.9%. The rate of occasional binge drinking (or party drinking), rose from 37% in 1975 saying that on at least one occasion they had taken five or more drinks in a row during the prior two weeks, to 41% in 1979. It has remained at that disturbingly high level since.

However, there is some modest evidence over the last several years from the overall prevalence figures and daily use figures of a very gradual diminution in alcohol use.

- Daily smoking dropped from 29% to 20% between 1977 and 1981, and daily use of half-a-pack a day or more fell from 19.4% to 13.5%. Since then, however, smoking rates have remained constant.

  As with marijuana, it appears that the rather large drop in daily smoking rates was in response to both personal concerns about the health consequences of use and perceived peer disapproval of use, both of which rose steadily through 1980. Slightly fewer males than females are regular smokers (13.1% of the males smoke half-a-pack a day vs. 13.6% of the females), but the sex difference is larger if occasional smoking is included. A far greater difference, however, is associated with college plans: only 8% of the college-bound smoke half-a-pack or more daily compared with 21% of the non-college-bound.

- In sum, the use of many illicit drugs has declined, or is declining, significantly from the peak levels attained during the late seventies. In addition, cigarette use has declined substantially, although that decline has now ended.

  Despite this generally good news about the direction in which things have been moving, it would be a disservice to leave the impression that the drug abuse problem among American youth is anywhere close to being solved. It is still true that:

  Roughly two-thirds of all American young people (63%) try an illicit drug before they finish high school.

  Fully 40% have illicitly used drugs other than marijuana.

  At least one in every eighteen high school seniors is actively smoking marijuana on a daily basis, and fully 17% have done so for at least a month at some time in their lives.

About one in eighteen is drinking alcohol daily; and 41% have had five or more drinks in a row at least once in the past two weeks.

Some 30% have smoked cigarettes in the prior month, a substantial proportion of whom are daily smokers (21%), or soon will be.

- These are truly alarming levels of substance use and abuse, whether by historical standards or in comparison with other countries. In fact, they still probably reflect the highest levels of illicit drug use to be found in any industrialized nation in the world.

PREVALENCE OF DRUG USE

This section summarizes the levels of drug use reported by the class of 1983. Data are included for lifetime use, use during the past year, use during the past month, and daily use. There is also a comparison of key subgroups in the population (based on sex, college plans, region of the country, and population density or urbanicity).

Because we think that the revised questions on amphetamine use, introduced in 1982, give a more accurate picture of the actual use of that controlled substance, all references to amphetamine prevalence rates in this section will be based on that revised version (including references to proportions using "any illicit drug" or "any illicit drug other than marijuana").

Prevalence of Drug Use in 1983: All Seniors

Lifetime, Monthly, and Annual Prevalence

- Nearly two-thirds of all seniors (63%) report illicit drug use (adjusted for overreporting of amphetamines) at some time in their lives. However, a substantial proportion of them have used only marijuana (23% of the sample or 37% of all illicit users).

- Four in every ten seniors (40%) report using an illicit drug other than marijuana (adjusted) at some time.*

- Figure A gives a ranking of the various drug classes on the basis of their lifetime prevalence figures.

- Marijuana is by far the most widely used illicit drug with 57% reporting some use in their lifetime, 42% reporting some use in the past year, and 27% reporting some use in the past month.

- The most widely used class of other illicit drugs is stimulants (27% lifetime prevalence, adjusted).** Next come inhalants (adjusted) at 19% and cocaine at 16%. These are followed closely by hallucinogens (adjusted) at 15%, sedatives at 14%, and tranquilizers at 13%.***

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*Use of "other illicit drugs" includes any use of hallucinogens, cocaine, or heroin or any use of other opiates, stimulants, sedatives, or tranquilizers which is not under a doctor's orders.

**See caution at the end of the introductory section concerning the interpretation of stimulant statistics.

***Only use which was not medically supervised is included in the figures cited in this volume.

TABLE 1

Prevalence (Percent Ever Used) of Sixteen Types of Drugs: Observed Estimates and 95% Confidence Limits (1983)

(Approx. N = 16300)

	Lower limit	Observed estimate	Upper limit
Marijuana/Hashish	54.9	57.0	59.1
Inhalants[a]	12.6	13.6	14.7
Inhalants Adjusted[b]	17.7	18.8	20.0
Amyl & Butyl Nitrites[c]	7.1	8.4	9.9
Hallucinogens	10.8	11.9	13.1
Hallucinogens Adjusted[d]	13.7	14.7	15.7
LSD	7.9	8.9	10.0
PCP[c]	4.5	5.6	6.9
Cocaine	14.9	16.2	17.6
Heroin	0.9	1.2	1.5
Other opiates[e]	8.6	9.4	10.2
Stimulants Adjusted[e,f]	25.5	26.9	28.4
Sedatives[e]	13.2	14.4	15.7
Barbiturates[e]	8.9	9.9	11.0
Methaqualone[e]	9.1	10.1	11.3
Tranquilizers[e]	12.1	13.3	14.6
Alcohol	91.2	92.6	93.8
Cigarettes	69.1	70.6	72.0

[a] Data based on four forms. N is four-fifths of N indicated.

[b] Adjusted for underreporting of amyl and butyl nitrites. See text for details.

[c] Data based on a single questionnaire form. N is one-fifth of N indicated.

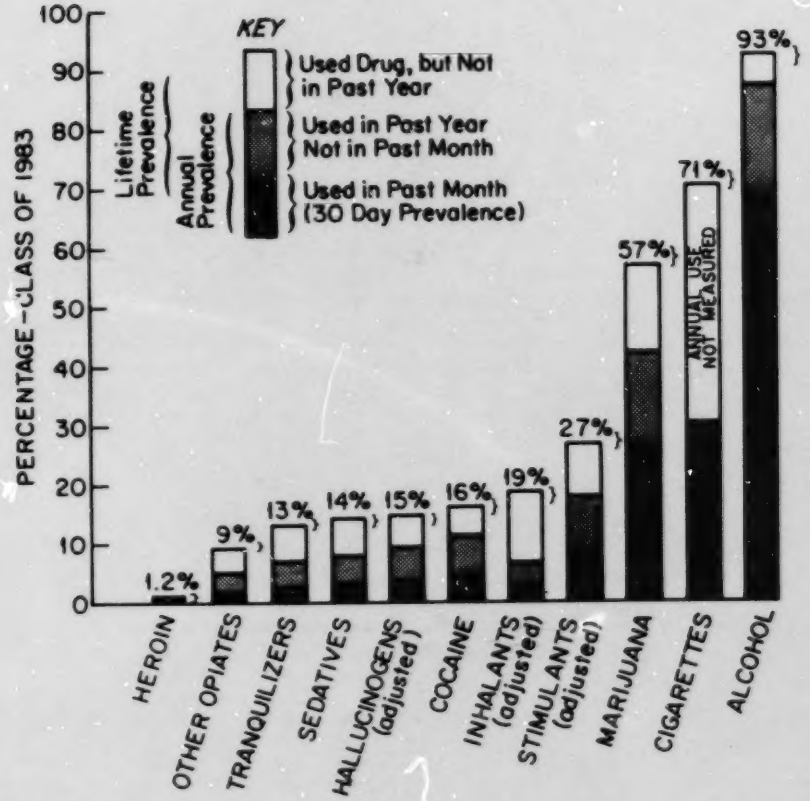
[d] Adjusted for underreporting of PCP. See text for details.

[e] Only drug use which was not under a doctor's orders is included here.

[f] Adjusted for overreporting of non-prescription stimulants. Data based on three questionnaire forms. N is three-fifths of N indicated.

FIGURE A

Prevalence and Recency of Use
Eleven Types of Drugs, Class of 1983



NOTES: The bracket near the top of a bar indicates the lower and upper limits of the 95% confidence interval.

- The inhalant estimates have been adjusted upward because we observed that not all users of one sub-class of inhalants—amyl and butyl nitrites (described below)—report themselves as inhalant users. Because we included questions specifically about nitrite use for the first time in one 1979 questionnaire form, we were able to discover this problem and make estimates of the degree to which inhalant use was being underreported in the overall estimates. As a result, all prevalence estimates for inhalants have been increased, with the proportional increase being greater for the more recent time intervals (i.e., last month, last year) because use of the other common inhalants, such as glue and aerosols, is more likely to have been discontinued prior to senior year.

- The specific classes of inhalants known as amyl and butyl nitrites, which are sold legally and go by the street names of "poppers" or "snappers" and such brand names as Locker Room and Rush, have been tried by one in every twelve seniors (8%).

- We also discovered in 1979, by adding questions specifically about PCP use, that some users of PCP do not report themselves as users of hallucinogens—even though PCP is explicitly included as an example in the questions about hallucinogens. Thus, since 1979 the hallucinogen prevalence and trend estimates have been adjusted upward to correct for this known underreporting.*

- Lifetime prevalence for the specific hallucinogenic drug PCP now stands at nearly 6%, somewhat lower than that of the other most widely used hallucinogen, LSD (lifetime prevalence, 9%).

- Opiates other than heroin have been used by one in eleven seniors (9%).

- Only 1.2% of the sample admitted to ever using any heroin, the most infrequently used drug. But given the highly illicit nature of this drug, we deem it the most likely to be underreported.

- Within the general class "sedatives," the specific drug methaqualone has now been used by as many seniors (10% lifetime prevalence) as the other, much broader subclass of sedatives, barbiturates (also 10%).

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*Because the data to adjust inhalant and hallucinogen use are available from only a single questionnaire form in a given year, the original uncorrected variables will be used in most relational analyses. We believe relational analyses will be least affected by these underestimates, and that the most serious impact is on prevalence estimates, which are adjusted appropriately.

TABLE 2

Prevalence (Percent Ever Used) and Recency of Use of Sixteen Types of Drugs (1983)

(Approx. N = 16300)

	Ever used	Past month	Past year, not past month	Not past year	Never used
Marijuana/Hashish	57.0	27.0	15.3	14.7	43.0
Inhalants[a]	13.6	1.7	2.6	9.3	86.4
Inhalants Adjusted[b]	*18.8*	*2.7*	*4.0*	*12.1*	*81.2*
Amyl & Butyl Nitrites[c]	8.4	1.4	2.2	4.8	91.6
Hallucinogens	11.7	2.8	4.5	4.6	88.1
Hallucinogens Adjusted[d]	*14.7*	*3.8*	*5.5*	*5.4*	*85.3*
LSD	8.9	1.9	3.5	3.5	91.1
PCP[c]	5.6	1.3	1.3	3.0	94.4
Cocaine	16.2	4.9	6.5	4.8	83.8
Heroin	1.2	0.2	0.4	0.6	98.8
Other opiates[e]	9.4	1.8	3.3	4.3	90.6
Stimulants Adjusted[e,f]	*26.9*	*8.9*	*9.0*	*9.0*	*73.1*
Sedatives[e]	14.4	3.0	4.9	6.5	85.6
Barbiturates[e]	9.9	2.1	3.1	4.7	90.1
Methaqualone[e]	10.1	1.8	3.6	4.7	89.9
Tranquilizers[e]	13.3	2.5	4.4	6.4	86.7
Alcohol	92.6	69.4	17.9	5.3	7.4
Cigarettes	70.6	30.3	(40.3)[g]		29.4

[a] Data based on four questionnaire forms. N is four-fifths of N indicated.

[b] Adjusted for underreporting of amyl and butyl nitrites (see text).

[c] Data based on a single questionnaire form. N is one-fifth of N indicated.

[d] Adjusted for underreporting of PCP (see text).

[e] Only drug use which was not under a doctor's orders is included here.

[f] Adjusted for overreporting of non-prescription stimulants. Data based on three questionnaire forms. N is three-fifths of N indicated.

[g] The combined total for the two columns is shown because the question asked did not discriminate between the two answer categories.

- The illicit drug classes remain in roughly the same order whether ranked by lifetime, annual, or monthly prevalence, as the data in Figure A illustrate. The only important change in ranking occurs for inhalants, because use of certain of them, like glues and aerosols, tends to be discontinued at a relatively early age.

- The drug classes with the highest rates of discontinuation of use are the inhalants adjusted (64% of previous users had not used in the past twelve months), the nitrite inhalants specifically (57% of users), the hallucinogen PCP (54%), and heroin (at 50%). Other opiates, barbiturates, methqualone, and tranquillizers all have discontinuation rates between 45% and 48%. Alcohol had the lowest rate of discontinuation, at 6%.

- Use of either of the two major licit drugs, alcohol and cigarettes, remains more widespread than use of any of the illicit drugs. Nearly all students have tried alcohol (93%) and the great majority (69%) have used it in the past month.

- Some 71% report having tried cigarettes at some time, and 30% smoked at least some in the past month.

Daily Prevalence

- Frequent use of these drugs is of greatest concern from a health and safety standpoint. Table 9 and Figure B show the prevalence of daily or near-daily use of the various classes of drugs. For all drugs, except cigarettes, respondents are considered daily users if they indicate that they had used the drug on twenty or more occasions in the preceding 30 days. For cigarettes, they explicitly state use of one or more cigarettes per day.

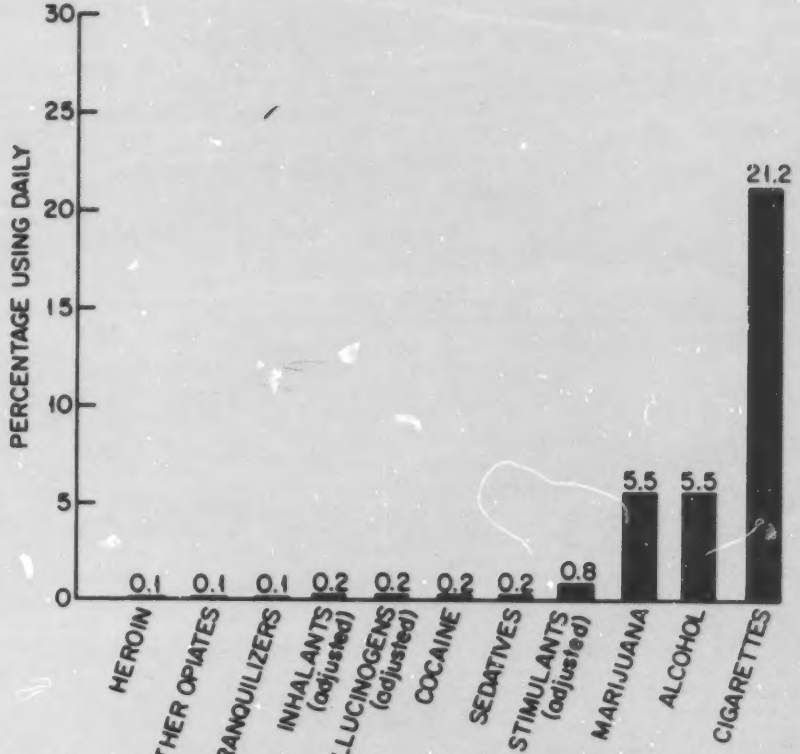
- The displays show that cigarettes are used daily by more of the respondents (21%) than any of the other drug classes. In fact, 13.8% say they smoke half-a-pack or more per day.

- Another important fact is that marijuana is still used on a daily or near-daily basis by a substantial fraction of the age group (5.5%), or about one in every eighteen seniors. This year exactly the same proportion (5.5%) drink alcohol that often.

- Less than 1% of the respondents report daily use of any one of the illicit drugs other than marijuana. Still, 0.8% report unsupervised daily use of amphetamines. (See discussion at end of introductory section on stimulant statistics.) The next highest daily-use figures are for cocaine, inhalants (adjusted), sedatives, and hallucinogens (adjusted), all at 0.2%. While very

FIGURE B

Thirty-Day Prevalence of Daily Use
Eleven Types of Drugs, Class of 1983



low, these figures are not inconsequential, given that 1% of each high school class represents over 30,000 individuals.

- Tranquilizers, heroin, and opiates other than heroin are used daily by only about 0.1%.

- While daily alcohol use stands at 5.5% for this age group, a substantially greater proportion report occasional heavy drinking. In fact, 41% state that on at least one occasion during the prior two-week interval they had five or more drinks in a row.

Prevalence Comparisons for Important Subgroups

Sex Differences

- In general, higher proportions of males than females are involved in drug use, especially heavy drug use; however, this picture is a complicated one (see Tables 3 through 5).

- Overall marijuana use is somewhat higher among males, and daily use of marijuana is more than twice as frequent among males (7.3% vs. 3.2% for females, data not shown).

- Males also have considerably higher prevalence rates on most other illicit drugs. The annual prevalence (Table 4) for inhalants, hallucinogens, heroin, and the specific drugs PCP, LSD and the nitrites tend to be one and one-half to two times as high among males as among females. Males also report somewhat higher annual rates of use than females for cocaine, methaqualone, barbiturates, and opiates other than heroin. Further, males account for an even greater share of the frequent or heavy users of these various classes of drugs (data not shown).

- Tranquilizers are used by about equivalent proportions of both sexes.

- Only in the case of stimulants do the annual prevalence rates (as well as frequent usage patterns) for females exceed those for males—and then only by trivial amounts. Annual prevalence for stimulants (adjusted) is 17.9% for females vs. 17.2% for males. This reversal in sex differences is due to the fact that substantially more females than males use stimulants for purposes of weight loss—an instrumental, as opposed to recreational, use of the drug.

- Despite the fact that all but two of the individual classes of illicit drugs are used more by males than by females, the proportions of both sexes who report

TABLE 3

Lifetime Prevalence of Use of Sixteen Types of Drugs by Subgroups, Class of 1983

	Marijuana	Inhalants [a]	Amyl/Butyl Nitrites	Hallucinogens [a]	LSD	PCP	Cocaine	Heroin	Other Opiates	Stimulants [b] (adjusted)	Sedatives	Barbiturates	Methaqualone	Tranquilizers	Alcohol	Cigarettes
All seniors	37.0	13.6	8.4	11.9	8.9	5.6	16.2	1.2	9.4	26.9	14.4	9.9	10.1	13.3	92.6	70.6
Sex:																
Male	39.9	16.6	11.9	13.4	10.4	6.9	18.6	1.5	10.7	26.0	15.6	10.7	11.6	13.7	93.5	69.0
Female	33.4	10.4	5.2	9.9	6.9	4.2	13.4	0.8	8.1	27.3	12.9	8.8	8.5	12.7	91.6	71.6
College Plans:																
None or under 4 yrs	61.2	19.9	10.5	14.4	11.0	8.8	18.3	1.7	11.2	31.7	18.0	12.9	12.8	15.3	93.3	76.0
Complete 4 yrs	32.2	12.3	7.2	9.0	6.5	3.5	13.6	0.8	8.0	21.8	11.3	7.4	7.7	11.3	92.0	65.8
Region:																
Northeast	43.7	13.0	8.4	14.3	8.7	6.0	20.5	1.1	9.0	26.9	12.4	8.4	8.7	12.3	93.4	72.9
North Central	37.0	14.4	8.6	15.1	11.7	6.2	12.5	1.3	10.0	29.8	15.9	11.9	10.8	13.4	94.8	74.3
South	30.8	12.4	9.0	7.8	6.7	4.3	12.0	1.4	8.5	23.4	15.9	9.9	11.8	13.9	90.5	69.2
West	39.2	15.3	6.9	11.2	8.4	6.1	23.1	0.9	10.8	28.4	11.9	8.7	7.3	13.2	88.4	63.6
Population Density:																
Large SMSA	42.3	13.8	9.4	15.1	9.7	8.3	22.6	1.2	11.2	26.9	14.5	10.0	10.6	12.9	94.0	71.0
Other SMSA	38.8	13.4	9.3	12.0	9.6	4.8	16.0	1.1	9.4	28.1	15.1	10.0	10.7	14.4	91.9	69.3
Non-SMSA	30.5	13.8	6.7	9.3	7.3	4.4	11.6	1.5	8.0	25.3	13.5	9.7	8.9	12.2	92.3	72.0

[a] Unadjusted for known underreporting of certain drugs. See page 18.

[b] Adjusted for overreporting of the non-prescription stimulants.

using some illicit drug other than marijuana (adjusted for overreporting of amphetamines) during the last year are not substantially different (29% for males vs. 27% for females; see Figure D). Even if amphetamine use is excluded from the comparisons altogether, fairly comparable proportions of both sexes (23% for males vs. 19% for females) report using some illicit drug other than marijuana during the year. If one thinks of going beyond marijuana as an important threshold point in the sequence of illicit drug use, then nearly equal proportions of both sexes were willing to cross that threshold at least once during the year. However, on the average the female "users" take fewer types of drugs and use them with less frequency than their male counterparts.

- Frequent use of alcohol tends to be disproportionately concentrated among males. Daily use, for example, is reported by 7.7% of the males but by only 2.8% of the females. Also, males are more likely than females to drink large quantities of alcohol in a single sitting.

- Finally, for cigarettes, there is only a slight sex difference in the prevalence of smoking a half-a-pack or more daily: 13.6% of the females smoke this heavily versus 13.1% of the males. There is a larger difference in proportions reporting any use during the past month: 32% of the females versus 28% of the males.

Differences Related to College Plans

- Overall, seniors who are expecting to complete four years of college (referred to here as the "college-bound") have lower rates of illicit drug use than those not expecting to do so (see Tables 3 through 5).

- Annual marijuana use is reported by 38% of the college-bound vs. 46% of the noncollege-bound.

- There is a substantial difference in the proportion of these two groups using any illicit drug(s) other than marijuana (adjusted). In 1983, 25% of the college-bound reported any such behavior in the prior year vs. 32% of the noncollege-bound. (If amphetamine use is excluded from these "other illicit drugs," the figures are 18% vs. 24%, respectively.)

- For most of the specific illicit drugs other than marijuana, annual prevalence is higher—sometimes substantially higher—among the noncollege-bound, as Table 4 illustrates. In fact, for many drugs current (30 day) prevalence is from two to four times higher among the noncollege-bound than among the college-bound. In general, this ratio is highest for heroin and lowest for cocaine.

TABLE 4

Annual Prevalence of Use of Sixteen Types of Drugs by Subgroups, Class of 1983

	Marijuana	Inhalants [a]	Amyl/Butyl Nitrites	Hallucinogens [a]	LSD	PCP	Cocaine	Heroin	Other Opiates	Stimulants [b] (adjusted)	Sedatives	Barbiturates	Methaqualone	Tranquilizers	Alcohol	Cigarettes [c]
All seniors	42.3	4.3	3.6	7.3	5.4	2.6	11.4	0.6	5.1	17.9	7.9	5.2	5.4	6.9	87.3	13.8
Sex:																
Male	43.7	5.8	4.9	8.6	6.7	3.2	13.2	0.7	6.0	17.2	8.8	5.9	6.3	7.0	88.9	13.1
Female	38.4	2.8	2.4	5.5	3.8	1.9	9.3	0.4	4.2	17.9	6.8	4.2	4.3	6.7	85.5	13.6
College Plans:																
None or under 4 yrs	46.0	4.7	4.3	8.9	6.9	4.4	12.2	0.9	6.1	20.9	10.0	6.7	6.9	8.0	87.5	20.9
Complete 4 yrs	38.3	3.9	3.3	5.4	3.8	1.4	9.9	0.3	4.3	14.5	5.9	3.8	3.9	5.8	86.8	7.6
Region:																
Northeast	49.3	5.0	4.1	8.7	5.6	3.2	15.2	0.6	5.6	17.9	7.2	4.7	4.8	6.8	91.6	16.6
North Central	42.0	4.5	3.0	8.9	7.0	2.6	8.0	0.4	5.3	20.4	9.0	6.1	6.0	6.8	90.2	17.1
South	36.1	3.8	4.3	5.2	4.4	1.9	7.7	0.7	4.4	15.4	8.6	5.2	6.4	7.4	83.5	12.4
West	44.8	4.3	3.0	6.3	4.2	3.1	19.2	0.5	5.2	18.2	5.5	4.0	3.1	6.2	82.9	6.4
Population Density:																
Large SMSA	47.0	4.8	4.0	9.2	5.7	4.1	[illegible]	0.6	6.0	18.1	8.0	5.2	5.5	7.0	88.5	14.1
Other SMSA	44.0	4.4	4.4	7.6	6.0	2.3	[illegible]	0.4	5.3	19.6	8.4	5.3	5.9	7.2	86.9	13.5
Non-SMSA	36.5	3.9	2.4	5.3	4.4	1.9	[illegible]	0.7	4.1	15.6	7.2	5.0	4.6	6.5	86.7	14.0

[a] Unadjusted for known underreporting of certain drugs. See page 18.

[b] Adjusted for overreporting of the non-prescription stimulants.

[c] Based on 30-day prevalence of a half-pack-a-day of cigarettes, or more. Annual prevalence is not available.

- Frequent use of many of these illicit drugs shows even larger contrasts related to college plans. Daily marijuana use, for example, is more than twice as high among those not planning four years of college (7.3%) as among the college-bound (3.4%).

- Frequent alcohol use is also more prevalent among the noncollege-bound. For example, drinking on a daily basis is reported by 6.7% of the noncollege-bound vs. only 4.0% of the college-bound. On the other hand, there are practically no differences between these groups in lifetime, annual, or monthly prevalence.

- By far the largest difference in substance use between the college and noncollege-bound involves cigarette smoking. There is a dramatic difference here, with only 8% of the college-bound smoking a half-a-pack or more daily compared with 21% of the noncollege-bound.

Regional Differences

- There are now some fair-sized regional differences in rates of illicit drug use among high school seniors. The highest (adjusted) rate is in the Northeast, where 54% say they have used a drug illicitly in the past year, followed by the West with 50% and the North Central with 47%. The South is lowest, with only 41% having used any illicit drug (see Figure H).

- There is also regional variation in terms of the percent using some illicit drug other than marijuana (adjusted) in the past year: 31% in the Northeast, 33% in the West, 29% in the North Central, and 24% in the South. (The West comes out very high due in part to its unusual level of cocaine use. In fact, the regional differences in cocaine use have been among the largest observed.) If amphetamine use is excluded from "the use of illicit drugs other than marijuana," the rankings change slightly: 27% in the West, 24% in the Northeast, 19% in the North Central, and 18% in the South.

- Specific illicit substances vary in the extent to which they show regional variation, as Table 4 illustrates for the annual prevalence measure.

  Marijuana use is highest in the Northeast (at 49%) and lowest in the South (36%). Hallucinogen use, including LSD, tends to be higher in the Northeast and North Central, and lower in the South and West. Cocaine shows considerable regional variation, with the South and North Central at 8% compared to 15% for the Northeast and 19% for the West. The South is slightly lower than the other three regions in the use of

TABLE 5

Thirty-Day Prevalence of Use of Sixteen Types of Drugs by Subgroups, Class of 1983

	Marijuana	Inhalants [a]	Amyl/Butyl Nitrites	Hallucinogens [a]	LSD	PCP	Cocaine	Heroin	Other Opiates	Stimulants [b] (adjusted)	Sedatives	Barbiturates	Methaqualone	Tranquilizers	Alcohol	Cigarettes
All seniors	27.0	1.7	1.4	2.8	1.9	1.3	4.9	0.2	1.8	8.9	3.0	2.1	1.8	2.5	69.4	30.3
Sex:																
Male	31.0	2.4	2.2	3.6	2.4	1.5	5.7	0.4	2.4	8.2	3.3	2.2	2.2	2.6	70.4	28.0
Female	22.2	0.9	0.5	2.0	1.2	0.9	4.1	0.1	1.3	9.1	2.6	1.8	1.3	2.4	68.3	31.6
College Plans:																
None or under 4 yrs	30.7	1.9	2.3	2.8	2.7	2.1	5.5	0.4	2.4	11.3	4.1	2.8	2.4	3.4	70.5	38.0
Complete 4 yrs	22.9	1.4	0.8	1.7	1.1	0.7	4.0	0.1	1.4	6.4	2.1	1.4	1.2	1.9	68.1	23.3
Region:																
Northeast	32.0	1.8	1.1	3.7	2.2	1.2	6.9	0.3	1.7	8.9	2.4	1.4	1.4	2.3	74.4	34.6
North Central	27.2	1.9	1.3	3.2	2.2	1.4	2.8	0.2	2.1	11.3	3.6	2.4	2.2	2.7	74.4	33.2
South	22.9	1.4	2.0	2.2	1.7	1.0	2.8	0.3	1.7	7.2	3.8	2.6	2.4	2.9	64.3	28.7
West	27.1	1.6	0.6	2.1	1.2	1.5	10.0	0.2	1.7	8.0	1.5	1.3	0.5	1.9	62.9	21.8
Population Density:																
Large SMSA	31.7	1.8	1.3	3.0	1.5	1.6	8.4	0.3	2.0	9.1	2.9	1.8	1.9	2.4	69.2	30.8
Other SMSA	28.1	1.6	2.4	3.2	2.2	1.5	4.3	0.2	1.9	9.8	3.2	2.3	2.0	2.6	69.8	29.1
Non-SMSA	21.8	1.6	0.2	2.1	1.7	0.7	3.0	0.2	1.6	7.6	2.9	2.0	1.6	2.5	69.0	31.5

[a] Unadjusted for known underreporting of certain drugs. See page 18.

[b] Adjusted for overreporting of the non-prescription stimulants.

stimulants and opiates other than heroin. Sedative use is lowest in the West, and highest in the South and North Central.

Inhalants, the nitrites specifically, PCP, heroin, and tranquilizers show little systematic variation among the regions.

- Alcohol use tends to be somewhat lower in the South and West than it is in the Northeast and North Central—in particular, the rate of daily drinking and "binge" drinking.

- Again, one of the largest differences occurs for regular cigarette smoking. Smoking half-a-pack or more a day occurs most often in the North Central (17% of seniors) and the Northeast (17%), with the South (12%) somewhat lower, and the West distinctly lower (6%). This general pattern of regional differences has been replicated fairly consistently since 1975.

Differences Related to Population Density

- Three levels of population density (or urbanicity) have been distinguished for analytical purposes: (1) Large SMSA's, which are the twelve largest Standard Metropolitan Statistical Areas in the 1980 Census; (2) Other SMSA's, which are the remaining Standard Metropolitan Statistical Areas; and (3) Non-SMSA's, which are sampling areas not designated as metropolitan.

- Overall illicit drug use is highest in the largest metropolitan areas (52% annual prevalence, adjusted), slightly lower in the other metropolitan areas (50%), and lowest in the nonmetropolitan areas (41%).

- The same ranking occurs for the use of illicit drugs other than marijuana: 32% annual prevalence (adjusted) in the largest cities, 30% in the other cities, and 24% in the nonmetropolitan areas. (With amphetamine use excluded, these numbers drop—to 26%, 22%, and 17%, respectively—but still remain in the same rank order.)

- For specific drugs, the largest absolute difference associated with urbanicity occurs for marijuana, which has an annual prevalence of 47% in the large cities but only 37% in the nonmetropolitan areas (Table 4).

- Cocaine shows an even greater proportional difference than does marijuana, since there is more than twice as much use in the large metropolitan areas (17%) compared to the nonmetropolitan areas (7%). The same is true for PCP (4.1% vs. 1.9%).

- There is some tendency for other types of drug use to be associated positively with urbanicity; however, the relationships are not strong nor always consistent from one year to another.

RECENT TRENDS

This section summarizes trends in drug use, comparing the nine graduating classes of 1975 through 1983. As in the previous section, the outcomes discussed include measures of lifetime use, use during the past year, use during the past month, and daily use. Also, trends are compared among the key subgroups.

Trends in Prevalence 1975-1983: All Seniors

- The years 1978 and 1979 marked the crest of a long and dramatic rise in marijuana use among American high school students. As Tables 6 through 9 illustrate, annual and 30-day prevalence of marijuana use hardly changed at all between 1978 and 1979, following a steady rise in the preceding years. In 1980 both statistics dropped for the first time, and they have continued to decline in the three years since. Both are now 9% to 10% below their all-time highs. Lifetime prevalence, which had remained unchanged in 1980, finally began to drop in '81, though more gradually. Even today it is only 3% below its all time high. As we discuss later, there have been some significant changes in the attitudes and beliefs these young people hold in relation to marijuana; these changes suggest that the downward shift in marijuana use is likely to continue.

- Of greater importance is the even sharper downward trend now occurring for daily marijuana use. Between 1975 and 1978 there was an almost two-fold increase in daily use. The proportion reporting daily use in the class of 1975 (6.0%) came as a surprise to many. That proportion then rose rapidly, so that by 1978 one in every nine high school seniors (10.7%) indicated that he or she used the drug on a daily or nearly daily basis (defined as use on 20 or more occasions in the last 30 days). In 1979 we reported that this rapid and troublesome increase had come to a halt, with a 0.4% drop occurring that year. By 1983 the daily usage rate has dropped to 5.5%—about one in every eighteen seniors—actually below the level we first observed in 1975. As later sections of this report document, much of this reversal appears to be due to a continuing increase in concerns about possible adverse effects from regular use, and a growing perception that peers would disapprove of regular marijuana use.

- Until 1978, the proportion of seniors involved in any illicit drug use had increased steadily, primarily because of the increase in marijuana use. About 54% of the classes of 1978 and 1979 reported having tried at least one illicit drug during the last year, up from 45% in the class of 1975. Since 1979, however, the proportion reporting using any illicit drug during the

TABLE 6

Trends in Lifetime Prevalence of Sixteen Types of Drugs

	Percent ever used									
Approx. N =	Class of 1975 (9400)	Class of 1976 (13400)	Class of 1977 (17100)	Class of 1978 (17800)	Class of 1979 (13500)	Class of 1980 (13900)	Class of 1981 (17300)	Class of 1982 (17700)	Class of 1983 (16300)	'82-'83 change
Marijuana/Hashish	47.3	51.8	56.4	59.2	60.4	60.3	59.3	58.7	57.0	-1.7
Inhalants[a]	NA	10.3	11.1	12.0	12.7	11.9	12.3	12.8	13.6	+0.8
Inhalants Adjusted[b]	NA	NA	NA	NA	18.7	17.8	17.4	18.0	18.8	+0.8
Amyl & Butyl Nitrites[c]	NA	NA	NA	NA	11.1	11.1	10.1	9.8	8.4	-1.4
Hallucinogens	16.3	15.1	13.9	14.3	14.1	13.3	13.3	12.5	11.9	-0.6
Hallucinogens Adjusted[d]	NA	NA	NA	NA	18.8	18.7	18.7	18.0	14.7	-0.3
LSD	11.3	11.0	9.8	9.7	9.5	9.3	9.8	9.6	8.9	-0.7
PCP[e]	NA	NA	NA	NA	12.8	9.6	7.8	6.0	3.4	-0.6
Cocaine	9.0	9.7	10.8	12.9	13.6	13.7	14.3	14.0	14.2	+0.2
Heroin	2.2	1.8	1.8	1.6	1.1	1.1	1.1	1.2	1.2	0.0
Other opiates[e]	9.0	9.6	10.3	9.9	10.1	9.8	10.1	9.6	9.4	-0.2
Stimulants[e]	22.3	22.6	25.0	22.9	26.2	26.4	32.2	35.6	35.4	-0.2
Stimulants Adjusted[e,f]	NA	NA	NA	NA	NA	NA	NA	37.9	36.9	-1.0
Sedatives[e]	18.2	17.7	17.4	16.0	16.6	16.9	16.0	15.5	14.6	-0.8
Barbiturates[e]	16.9	16.2	15.6	13.7	11.8	11.0	11.3	10.3	9.9	-0.4
Methaqualone[e]	8.1	7.8	8.3	7.9	8.3	9.5	10.6	10.7	10.1	-0.6
Tranquilizers[e]	17.0	16.8	18.0	17.0	16.3	13.2	14.7	14.0	13.3	-0.7
Alcohol	90.4	91.9	92.3	93.1	93.0	93.2	92.6	92.8	92.6	-0.2
Cigarettes	73.6	75.6	75.7	75.3	76.0	71.0	71.0	70.1	70.6	+0.5

NOTES: Level of significance of difference between the two most recent classes:
. = .05, * = .01, ** = .001.

NA indicates data not available.

[a] Data based on four questionnaire forms. N is four-fifths of N indicated.

[b] Adjusted for underreporting of amyl and butyl nitrites (see text).

[c] Data based on a single questionnaire form. N is one-fifth of N indicated.

[d] Adjusted for underreporting of PCP (see text).

[e] Only drug use which was not under a doctor's orders is included here.

[f] Adjusted for overreporting of the non-prescription stimulants. Data based on three questionnaire forms. N is three-fifths of N indicated.

TABLE 7

Trends in Annual Prevalence of Sixteen Types of Drugs

	Percent who used in last twelve months									
	Class of 1975	Class of 1976	Class of 1977	Class of 1978	Class of 1979	Class of 1980	Class of 1981	Class of 1982	Class of 1983	'82-'83 change
Approx. N =	(9400)	(15400)	(17100)	(17800)	(15300)	(15900)	(17300)	(17700)	(16300)	
Marijuana/Hashish	40.0	44.3	47.6	50.2	50.8	48.8	46.1	44.3	42.3	-2.0
Inhalants[a]	NA	3.0	3.7	4.1	5.4	6.6	6.1	6.5	6.3	-0.2
Inhalants Adjusted[b]	NA	NA	NA	NA	9.2	7.8	8.0	8.0	8.7	+0.7
Amyl & Butyl Nitrites[c]	NA	NA	NA	NA	6.3	5.7	5.7	5.6	5.6	0.0
Hallucinogens	11.2	9.4	8.8	9.6	9.9	9.3	9.0	8.1	7.3	-0.8
Hallucinogens Adjusted[d]	NA	NA	NA	NA	12.8	10.8	10.1	9.3	9.3	0.0
LSD	7.2	6.4	5.5	6.3	6.6	6.5	6.5	6.1	5.4	-0.7
PCP[c]	NA	NA	NA	NA	7.0	6.4	5.2	2.2	2.6	+0.4
Cocaine	5.6	6.0	7.2	9.0	12.0	12.3	12.4	11.5	11.4	-0.1
Heroin	1.0	0.8	0.8	0.8	0.5	0.5	0.5	0.6	0.6	0.0
Other opiates[e]	5.7	5.7	6.4	6.0	6.2	6.1	5.9	5.3	5.1	-0.2
Stimulants[e]	16.2	15.8	16.3	17.1	18.3	20.8	26.0	26.1	29.6	-1.5
Stimulants Adjusted[e,f]	NA	NA	NA	NA	NA	NA	NA	20.3	17.9	-2.4ns
Sedatives[e]	11.7	10.7	10.8	9.9	9.9	10.3	10.5	9.1	7.9	-1.2s
Barbiturates[e]	10.7	9.6	9.3	8.1	7.5	6.8	6.6	5.5	5.2	-0.3
Methaqualone[e]	5.1	6.7	5.2	6.9	5.9	7.2	7.6	6.8	5.4	-1.4ns
Tranquilizers[e]	10.6	10.3	10.8	9.9	9.6	8.7	8.0	7.0	6.9	-0.1
Alcohol	88.8	85.7	87.0	87.7	88.1	87.9	87.0	86.8	87.3	+0.5
Cigarettes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: Level of significance of difference between the two most recent classes:
s = .05, ss = .01, sss = .001.

NA indicates data not available.

[a] Data based on four questionnaire forms. N is four-fifths of N indicated.

[b] Adjusted for underreporting of amyl and butyl nitrites (see text).

[c] Data based on a single questionnaire form. N is one-fifth of N indicated.

[d] Adjusted for underreporting of PCP (see text).

[e] Only drug use which was not under a doctor's orders is included here.

[f] Adjusted for overreporting of the non-prescription stimulants. Data based on three questionnaire forms. N is three-fifths of N indicated.

TABLE 8

Trends in Thirty-Day Prevalence of Sixteen Types of Drugs

	Percent who used in last thirty days									
	Class of 1975	Class of 1976	Class of 1977	Class of 1978	Class of 1979	Class of 1980	Class of 1981	Class of 1982	Class of 1983	'82-'83 change
Approx. N =	(5400)	(15400)	(17100)	(17800)	(15500)	(15900)	(17500)	(17700)	(16300)	
Marijuana/Hashish	27.1	32.2	33.4	37.1	36.5	33.7	31.6	28.5	27.0	-1.5
Inhalants[a]	NA	0.9	1.3	1.3	1.7	1.6	1.3	1.5	1.7	+0.2
Inhalants Adjusted[b]	NA	NA	NA	NA	3.1	2.7	2.3	2.5	2.7	+0.2
Amyl & Butyl Nitrites[c]	NA	NA	NA	NA	2.6	1.8	1.6	1.1	1.6	+0.3
Hallucinogens	4.7	3.6	4.1	3.9	4.0	3.7	3.7	3.6	2.8	-0.6a
Hallucinogens Adjusted[d]	NA	NA	NA	NA	5.5	4.4	4.4	4.3	3.8	-0.5
LSD	2.3	1.9	2.1	2.1	2.6	2.3	2.5	2.6	1.9	-0.3a
PCP[c]	NA	NA	NA	NA	2.6	1.6	1.6	1.0	1.3	+0.3
Cocaine	1.9	2.0	2.9	3.9	5.7	5.2	5.8	5.0	4.9	-0.1
Heroin	0.6	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.0
Other opiates[e]	2.1	2.0	2.8	2.1	2.6	2.6	2.1	1.8	1.8	0.0
Stimulants[e]	8.5	7.7	8.8	8.7	9.9	12.1	13.8	13.7	12.6	-1.1a
Stimulants Adjusted[e,f]	NA	NA	NA	NA	NA	NA	NA	*10.7*	*8.9*	*-1.8a*
Sedatives[e]	5.6	6.5	5.1	6.2	6.6	6.8	6.6	5.6	5.0	-0.6
Barbiturates[e]	4.7	3.9	4.3	3.2	3.2	2.9	2.6	2.0	2.1	+0.1
Methaqualone[e]	2.1	1.6	2.3	1.9	2.3	3.3	3.1	2.6	1.8	-0.6a
Tranquilizers[e]	6.1	6.0	6.6	5.6	5.7	5.1	4.7	4.6	4.5	+0.1
Alcohol	68.2	68.3	71.2	72.1	71.8	72.0	70.7	69.7	69.6	-0.3
Cigarettes	36.7	38.8	38.6	36.7	36.6	30.5	29.6	30.0	30.3	+0.3

NOTES: Level of significance of difference between the two most recent classes:
a = .05, aa = .01, aaa = .001.

NA indicates data not available.

[a] Data based on four questionnaire forms. N is four-fifths of N indicated.

[b] Adjusted for underreporting of amyl and butyl nitrites (see text).

[c] Data based on a single questionnaire form. N is one-fifth of N indicated.

[d] Adjusted for underreporting of PCP (see text).

[e] Only drug use which was not under a doctor's orders is included here.

[f] Adjusted for overreporting of the non-prescription stimulants. Data based on three questionnaire forms. N is three-fifths of N indicated.

TABLE 9

Trends in Thirty-Day Prevalence of Daily Use of Sixteen Types of Drugs

	Percent who used daily in last thirty days									
	Class of 1975	Class of 1976	Class of 1977	Class of 1978	Class of 1979	Class of 1980	Class of 1981	Class of 1982	Class of 1983	'82-'83 change
Approx. N =	(9400)	(13400)	(17100)	(17800)	(15300)	(13900)	(17300)	(17700)	(16300)	
Marijuana/Hashish	6.0	8.2	9.1	10.7	10.3	9.1	7.0	6.3	5.5	-0.8s
Inhalants[a]	NA	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.0
Inhalants Adjusted[b]	NA	NA	NA	NA	*0.1*	*0.2*	*0.2*	*0.2*	*0.2*	*0.0*
Amyl & Butyl Nitrites[c]	NA	NA	NA	NA	0.0	0.1	0.1	0.0	0.2	+0.2s
Hallucinogens	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Hallucinogens Adjusted[d]	NA	NA	NA	NA	*0.2*	*0.2*	*0.1*	*0.2*	*0.2*	*0.0*
LSD	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	+0.1
PCP[c]	NA	NA	NA	NA	0.1	0.1	0.1	0.1	0.1	0.0
Cocaine	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.0
Heroin	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Other opiates[e]	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.0
Stimulants[e]	0.5	0.6	0.5	0.5	0.6	0.7	1.2	1.1	1.1	0.0
Stimulants Adjusted[e,f]	NA	NA	NA	NA	NA	NA	NA	*0.7*	*0.8*	*+0.1*
Sedatives[e]	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.0
Barbiturates[e]	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.0
Methaqualone[e]	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	-0.1
Tranquilizers[e]	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Alcohol	5.7	5.6	6.1	5.7	6.9	6.0	6.0	5.7	5.5	-0.2
Cigarettes	26.9	28.8	28.8	27.5	25.4	21.3	20.3	21.1	21.2	+0.1

NOTES: Level of significance of difference between the two most recent classes: s = .05, ss = .01, sss = .001.

NA indicates data not available.

[a] Data based on four questionnaire forms. N is four-fifths of N indicated.

[b] Adjusted for underreporting of amyl and butyl nitrites (see text).

[c] Data based on a single questionnaire form. N is one-fifth of N indicated.

[d] Adjusted for underreporting of PCP (see text).

[e] Only drug use which was not under a doctor's orders is included here.

[f] Adjusted for overreporting of the non-prescription stimulants. Data based on three questionnaire forms. N is three-fifths of N indicated.

prior year has dropped by 1 or 2% annually. This reversal in the proportion of students having any involvement with illicit drugs appears to be due primarily to the change in marijuana use.

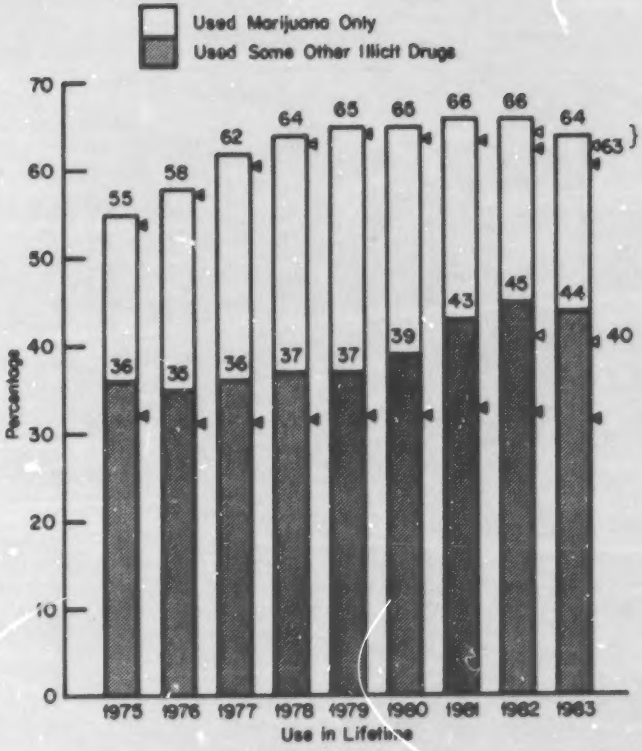
- As part one of Figure C illustrates, between 1976 and 1982 there had been a very gradual, steady increase in the proportion who have ever used some illicit drug other than marijuana. The proportion going beyond marijuana in their lifetime had risen from 35% to 45% between 1976 and 1982; in 1983 it dropped back to 44%. The annual prevalence of such behaviors, which had risen from 25% to 34% in 1981, levelled in 1982 and then dropped back slightly in 1983 to 33%. But the current (or 30-day) prevalence figures have shown a drop during the last two years—from a high of 22% in 1981 down to 18% in 1983.

  Most of the earlier rise in other illicit drug use appeared to be due to the increasing popularity of cocaine with this age group between 1976 and 1979, and then due to the increasing use of stimulants between 1975 and 1982. However, as stated earlier, we believe that this upward shift had been exaggerated because some respondents included instances of using over-the-counter substances in their reports of amphetamine use. (See discussion at the end of the introductory section.) A rather different picture of what trends have been occurring in the proportions using illicit drugs other than marijuana emerges when self-reported amphetamine use is excluded from the calculations altogether. (This obviously understates the percent using illicits other than marijuana in any given year, but it might yield a more accurate picture of trends in proportions.) Figure C (and other figures to follow) have been annotated with small markings (—) next to each year's bar, showing where the shaded area would stop if amphetamines were excluded. The cross-time trend in these markings shows that the proportion going beyond marijuana during the prior year to illicits other than amphetamines was virtually constant between 1979 and 1981 at a peak level of 24% (which is only 1.4% above the 1975 level). The figure dropped to 22% in 1982 and to 21% in 1983. Thus with stimulants (including incorrectly reported ones) included, we see a leveling in the proportion of seniors going beyond marijuana use during the prior year. If all stimulant use is excluded from consideration, we actually see a modest decline in annual prevalence and an even more substantial decline in current prevalence.

- Although the overall proportion using illicit drugs other than marijuana has changed fairly gradually during recent years, more varied and turbulent changes have been occurring for specific drugs within the class.

FIGURE C

Trends in Lifetime Prevalence of an Illicit Drug Use Index
All Seniors



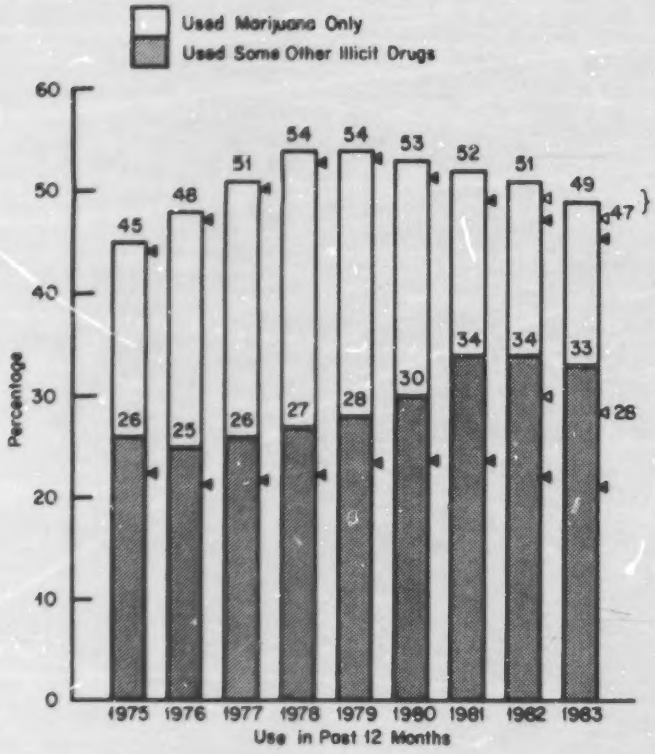
NOTES: Use of "some other illicit drugs" includes any use of hallucinogens, cocaine, and heroin, or any use which is not under a doctor's orders of other opiates, stimulants, sedatives, or tranquilizers.

◄ indicates the percentage which results if all stimulants are excluded from the definition of "illicit drugs." ◄ shows the percentage which results if only non-prescription stimulants are excluded.

The bracket near the top of a bar indicates the lower and upper limits of the 95% confidence interval.

FIGURE C, Cont.

Trends in Annual Prevalence of an Illicit Drug Use Index
All Seniors



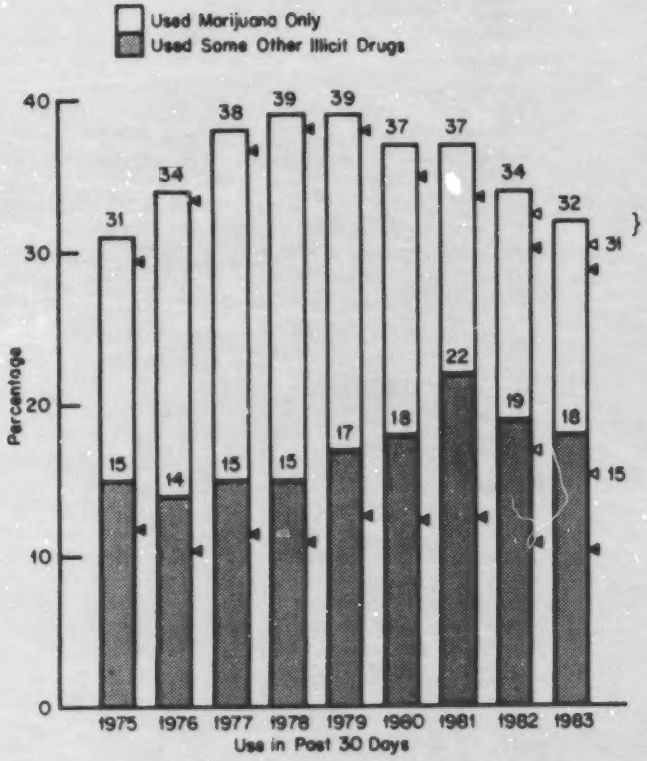
NOTES: Use of "some other illicit drugs" includes any use of hallucinogens, cocaine, and heroin, or any use which is not under a doctor's orders of other opiates, stimulants, sedatives, or tranquilizers.

◄ indicates the percentage which results if all stimulants are excluded from the definition of "illicit drugs." ◄ shows the percentage which results if only non-prescription stimulants are excluded.

The bracket near the top of a bar indicates the lower and upper limits of the 95% confidence interval.

FIGURE C, Cont.

Trends in 30-Day Prevalence of an Illicit Drug Use Index
All Seniors



NOTES: Use of "some other illicit drugs" includes any use of hallucinogens, cocaine, and heroin, or any use which is not under a doctor's orders of other opiates, stimulants, sedatives, or tranquilizers.

◄ indicates the percentage which results if all stimulants are excluded from the definition of "illicit drugs." ◄ shows the percentage which results if only non-prescription stimulants are excluded.

The bracket near the top of a bar indicates the lower and upper limits of the 95% confidence interval.

(See Tables 6, 7, and 8 for trends in lifetime, annual, and monthly prevalence figures for each class of drugs.)

- From 1976 to 1979 cocaine exhibited a dramatic and accelerating increase in popularity, with annual prevalence going from 6% in the class of 1976 to 12% in the class of 1979—a two-fold increase in just three years. Little further increase occurred in 1980 and 1981. Since 1981, however, there has been evidence of a slight decline in use (with annual prevalence dropping from 12.4% in 1981 to 11.4% in 1983). Other measures, dealing with friends' use and personal exposure to use, also show a decline.

- Like cocaine use, inhalant use had been rising steadily in the mid 1970's, though more slowly and from a lower overall level. Annual prevalence (in the unadjusted version) rose from 3.0% in 1976 and reached a peak of 3.4% in 1979. Then, between 1979 and 1981, there was an overall decline—in part due to a substantial drop in the use of the amyl and butyl nitrites, for which annual prevalence declined from 6.5% in 1979 to 3.7% in 1981. However, while nitrite use has not increased since 1981, total inhalant use has actually risen very slightly.

- Stimulant use, which had remained relatively unchanged between 1975 and 1978, began to show evidence of a gradual increase in use in 1979, with even greater increases to occur in 1980 and 1981. Between 1976 and 1981, reported annual prevalence rose by a full 10.2% (from 15.8% in 1976 to 26.0% in 1981); and daily use tripled, from 0.4% in 1976 to 1.2% in 1981. As stated earlier, we think these increases were exaggerated—perhaps sharply exaggerated—by respondents in the more recent surveys including non-amphetamine, over-the-counter diet pills (as well as look-alike and sound-alike pills) in their answers. In 1982, we added new versions of the questions on amphetamine use, which were more explicit in instructing respondents not to include such non-prescription pills. (These were added to only three of the five forms of the questionnaire being used: the amphetamine questions were left unchanged in the other two forms.) As a result tables 6, 7, 8, and 9 give two estimates for amphetamines: one is based on the unchanged questions, which provides comparable data across time for longer-term trend estimates; the second (adjusted) estimate, based on the revised questions, provides our best estimate of prevalence of true amphetamine use.*

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*We think the unadjusted estimates for the earliest years of the survey were probably little affected by the improper inclusion of non-prescription stimulants, since sales of the latter did not burgeon until after the 1979 data collection.

Last year we reported a mixed picture in the 1981 to 1982 changes, based on the unadjusted values: lifetime prevalence increased by 3.4%; annual prevalence was virtually unchanged; and monthly prevalence decreased significantly. Daily prevalence was also down slightly. We concluded that this pattern likely reflected a very recent decline in stimulant use, so recent that only daily or monthly figures picked up the change.

This year's statistics on both the unadjusted and adjusted versions bear out this interpretation. Declines in lifetime, annual, and monthly use are observed. For example, annual prevalence (adjusted) dropped significantly from 20.3% to 17.9%. This is an important reversal because stimulants comprised the only category of illicit drug use to be showing signs of vigorous growth in the 1980's. We can now say for certain that this high prevalence category of drug use is declining.

- For sedatives the sustained, gradual decline between 1975 and 1979 halted in 1980 and 1981. For example, annual prevalence, which dropped steadily from 11.7% in 1975 to 9.9% in 1979, increased slightly to 10.5% in 1981. In 1982, though, the longer term decline resumed again as annual prevalence fell to 9.1%, and this year use dropped even further to 7.9%. In sum, it has dropped by about one-third since the study began in 1975. But, the overall trend lines for sedatives mask differential trends occurring for the two components of the measure (see Figure E). Barbiturate use has declined rather steadily since 1975 and now stands at about half its 1975 level in terms of annual prevalence (i.e. at 5.2%). Methaqualone use, on the other hand, rose sharply from 1976 until 1981. (In fact, it was the only drug other than stimulants that was still rising in 1981.) In 1982, the use of methaqualone finally began to decline, which accounted for the overall sedative category resuming its decline. It continued to decline in 1983, but annual prevalence is still at about the same level as first observed in 1975 (5.4% in 1983)—a level equivalent to the entire class of barbiturate sedatives (5.2%).

- The lifetime and annual statistics for tranquilizers continued their steady decline this year—a decline which began in 1977. Annual prevalence has dropped from 11% in 1977 to 7% in 1983. However, while lifetime prevalence dropped by 0.7%, the drop in annual use was only 0.1% this year, and 30-day prevalence actually rose by 0.1%. (None of these 1983 changes is statistically significant.) It thus appears that this long and steady decline may be "bottoming out." However, it should be noted that questions on friends' use of tranquilizers, and on personal exposure to the use of tranquilizers by others, both continue to

show significant declines in 1983. (These are discussed later in this report.)

- Between 1975 and 1979 the prevalence of heroin use had been dropping rather steadily. Lifetime prevalence dropped from 2.2% in 1975 to 1.1% in 1979 and annual prevalence had also dropped by half, from 1.0% in 1975 to 0.5% in 1979. This decline halted in 1980 and the statistics have remained almost constant since then. (Annual prevalence stood at 0.6% in both 1982 and 1983.) But perhaps the fact of greatest significance is that overall use did not increase, considering the greater availability and purity of heroin reported to be entering the United States as a result of instability in opium producing countries in the Middle East.*

  There has been an important increase reported by the National Institute on Drug Abuse in the key measures of more serious involvement in heroin use—heroin-related medical emergencies and overdose deaths. We think the divergent results may in part be explained by (1) the greater dangers of overdose with increased, or more variable, purity; (2) higher recidivism among previous users due both to lower prices and the conditions associated with high unemployment; and (3) the relative insularity of an in-school, low-using population to these forces.

- From 1975 to 1981 the use of opiates other than heroin remained fairly stable, with annual prevalence at or near 6%. In 1982 for the first time there was a statistically significant decline observed (from 5.9% to 5.3%); and in 1983 there was a small, but not statistically significant, continuation of the trend (with annual prevalence dropping to 5.1%).

- Hallucinogen use (unadjusted for underreporting of PCP) declined some in the middle of the decade (from 11.2% in 1975 to 9.6% in 1978 on annual prevalence). Then, between 1979, when the first adjusted figures were available, and 1982 there was a steady decline in that adjusted statistic, with adjusted annual prevalence dropping from 12.8% in 1979 to 9.3% in 1982. In 1983, the annual adjusted statistic shows no further change, but the lifetime prevalence did continue to drop as did the 30-day statistic. We conclude from this pattern of results that the decline in hallucinogen use is most likely continuing.

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*Since the impact to date is alleged to be greatest in the Northeastern cities, we examined heroin statistics for the Northeast specifically (see the full 1983 volume for these details) and found no increase there either.

- LSD, one of the major drugs comprising the hallucinogen class, showed a decline from 1975 to 1978, followed by considerable stability through 1982. In 1983, there is a decline in all prevalence statistics, with the 30-day prevalence declining significantly from 2.4% in 1982 to 1.9% in 1983). The questions on proportion of friends using and personal exposure to use also indicate a significant decline in use for 1983.

- The lifetime prevalence statistic for the specific hallucinogen PCP showed a continuation of the steady and very substantial decrease which began in 1979 when we first measured the use of this drug (lifetime prevalence has dropped from 12.8% in the class of 1979 to 5.6% in the class of 1983). However, the annual and 30-day statistics for PCP show a slight reversal in 1983 (neither is statistically significant). This suggests either a very recent change in incidence rates, a greater level of recidivism in 1983, and/or simply sampling error. The 1984 results should help to provide the answers.

- As can be seen from these varied patterns for the several drug classes, while the overall proportion of seniors using any illicit drugs other than marijuana or amphetamines has changed rather little, the mix of drugs they are using has been changing.

- Turning to the licit drugs, between 1975 and 1978 there was a small upward shift in the prevalence of alcohol use (except for daily use) among seniors. To illustrate, the annual prevalence rate rose steadily from 85% in 1975 to 88% in 1978, and monthly prevalence rose from 68% to 72%. Between 1978 and 1980, however, the alcohol prevalence figures remained nearly constant. Since 1980 there has been no change in the lifetime or annual prevalence rates and only a slight change in 30-day prevalence (down from 72% in 1980 to 69% in 1983).

- This year, for the first time since the study began in 1975, daily alcohol use occurs at the same frequency as daily marijuana use—that is, at 5.5% This equivalence has come about because of the very large decline in daily marijuana use. Daily alcohol use is also now beginning to show some evidence of a gradual and slight downward drift. The 5.5% level observed in 1983 is the lowest of any of the years of the survey, down from the 6.9% reading in 1979—the peak year. However, a more important measure of alcohol use—binge drinking—shows no such decline.

- There had been some increase in the frequency of binge drinking in the last half of the 1970's. When asked whether they had taken five or more drinks in a row during the prior two weeks, 37% of the seniors in 1975 said they had. This proportion rose gradually to

41% by 1979, and has remained at that level since. Thus, to answer a frequently asked question, there is no evidence that the currently observed drop in marijuana use is leading to a concomitant increase in alcohol use. If anything, daily alcohol use has declined slightly since 1979.

- As for cigarette use, 1976 and 1977 appear to have been the peak years for lifetime, thirty-day, and daily prevalence. (Annual prevalence is not asked.) Over the subsequent graduating classes, thirty-day prevalence had been dropping, from 38% in the class of 1977 to 29% in the class of 1981. More importantly, daily cigarette use dropped over that same interval from 29% to 20%, and daily use of half-pack-a-day or more had fallen from 19.4% to 13.5% between 1977 and 1981 (nearly a one-third decrease). In 1981 we reported that the decline appeared to be decelerating; in 1982 it halted and perhaps even reversed slightly. Since the 1983 results yield no significant change from 1982, we can confirm that the decline has ended. Of pehaps more importance, there appears to be no indication of a reversal—of an increase in use—as we feared might be the case based on the 1982 results. The daily smoking rate now stands at 21%, the same as in 1980; and daily smoking of half-a-pack or more stands at 13.8%.

Trend Comparisons for Important Subgroups

Sex Differences in Trends

- Most of the sex differences mentioned earlier for individual classes of drugs have remained relatively unchanged over the past seven years—that is, any trends in overall use have occurred about equally among males and females, as the trend lines in Figures D and E illustrate. There are, however, a few exceptions.

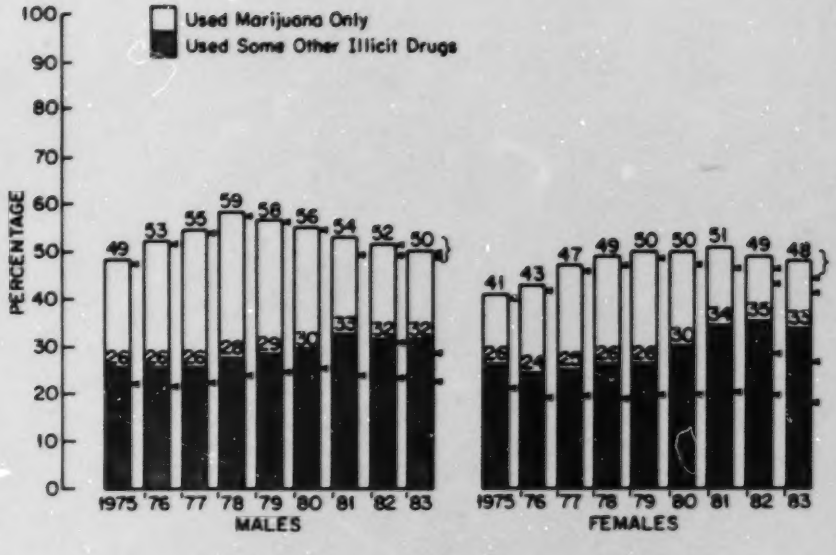
- Since 1977, the small sex difference involving tranquilizer use (men this age had used them less frequently than women) has disappeared, due to a faster decline among females.

- The ratio of male-female prevalence rates in cocaine use, which was rather large in the mid-1970's, has diminished somewhat in the early 1980's; nevertheless, there remains a sizeable sex difference, with males using more frequently.

- An examination of the trends in the proportion of each sex using any illicit drug (see Figure D) suggests that use among males rose between 1975 and 1978, and has been declining since then (from 59% in 1978 to 50% in 1983). Use among females increased from 1975 (41%)

FIGURE D

Trends in Annual Prevalence of an Illicit Drug Use Index by Sex



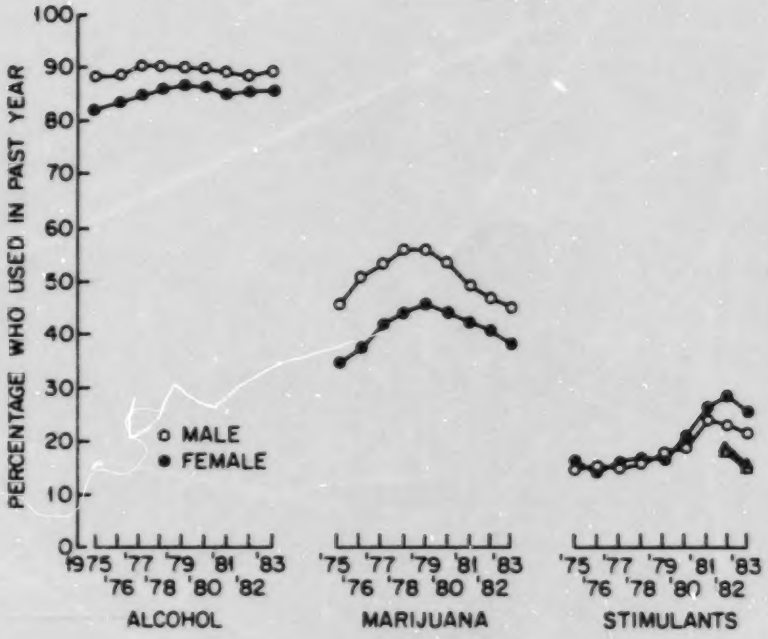
NOTES: Use of "some other illicit drugs" includes any use of hallucinogens, cocaine, and heroin, or any use which is not under a doctor's orders of other opiates, stimulants, sedatives, or tranquilizers.

◄ indicates the percentage which results if all stimulants are excluded from the definition of "illicit drugs." ◄ shows the percentage which results if only non-prescription stimulants are excluded.

The bracket near the top of a bar indicates the lower and upper limits of the 95% confidence interval.

FIGURE E

Trends in Annual Prevalence of Fifteen Drugs
by Sex



NOTE: The triangles indicate the percentages which result if non-prescription stimulants are excluded.

FIGURE E (cont.)

Trends in Annual Prevalence of Fifteen Drugs
by Sex

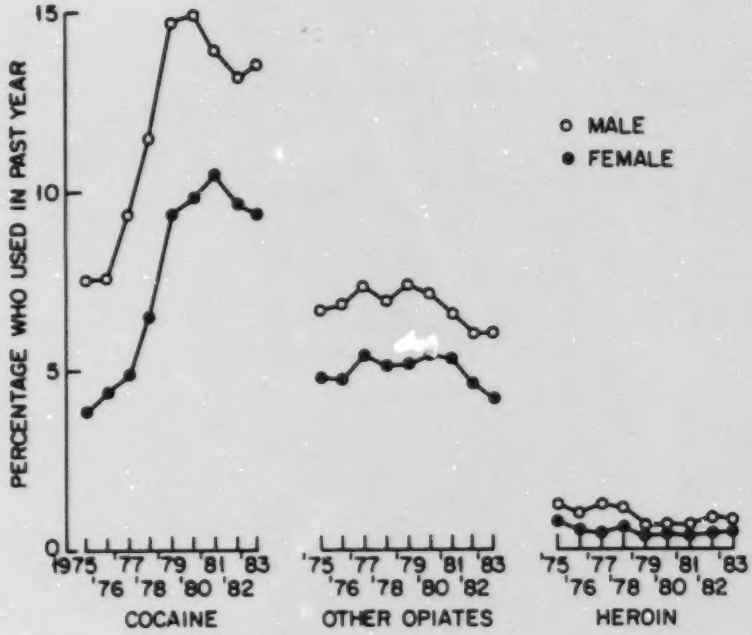


FIGURE E (cont.)

Trends in Annual Prevalence of Fifteen Drugs
by Sex

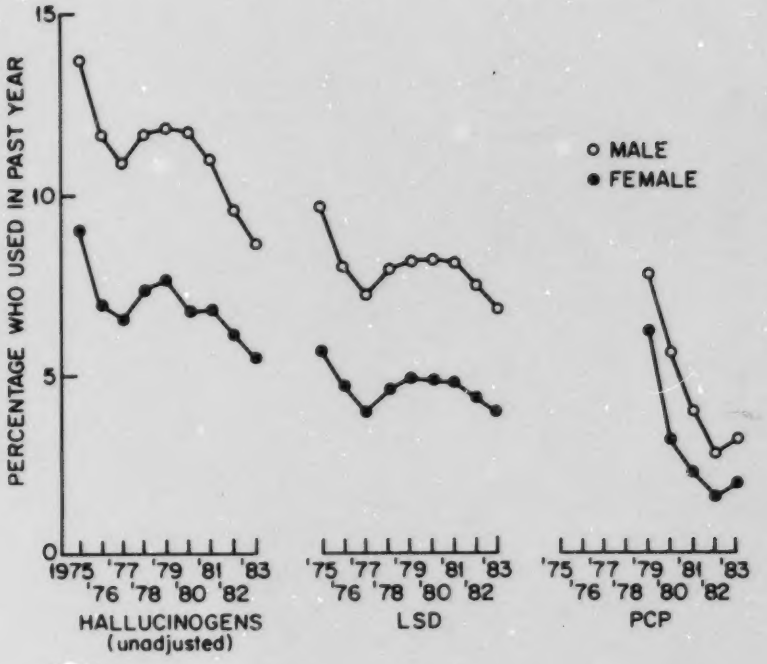


FIGURE E (cont.)

Trends in Annual Prevalence of Fifteen Drugs
by Sex

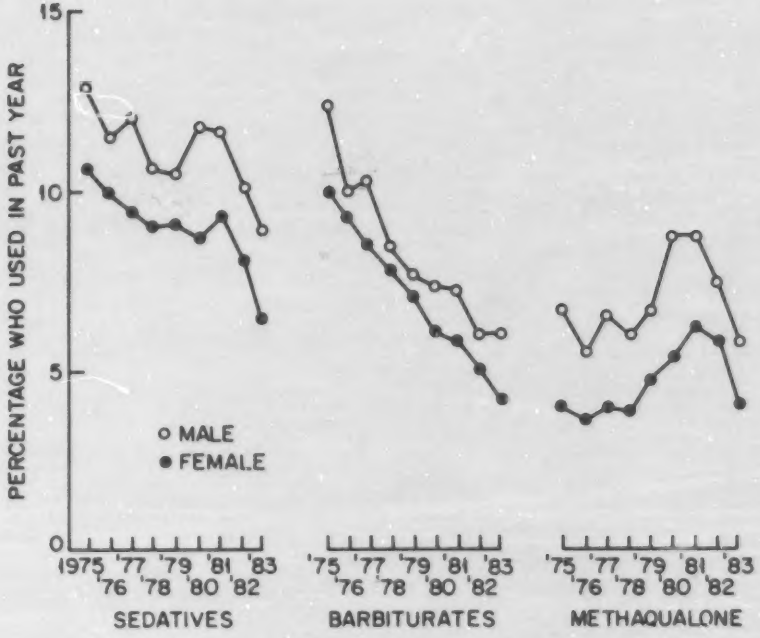


FIGURE E (cont.)

Trends in Annual Prevalence of Fifteen Drugs by Sex

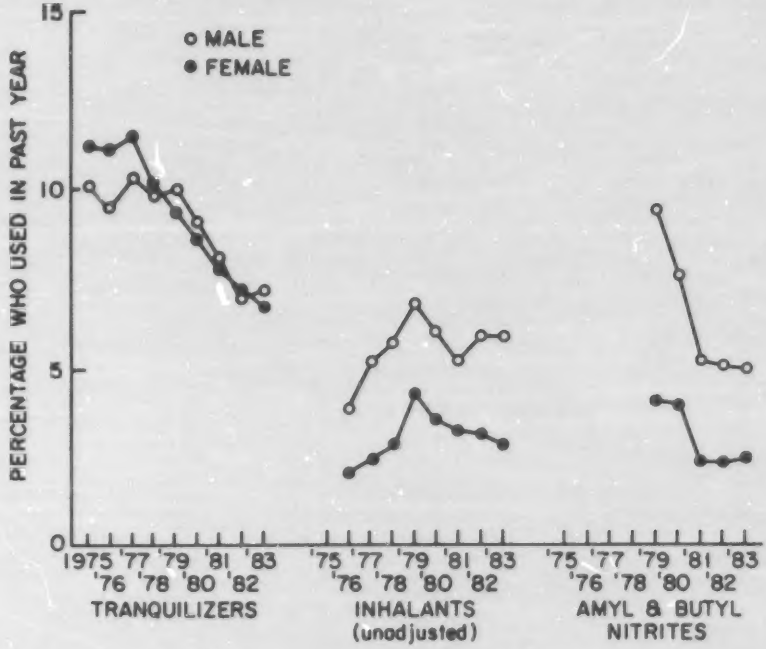
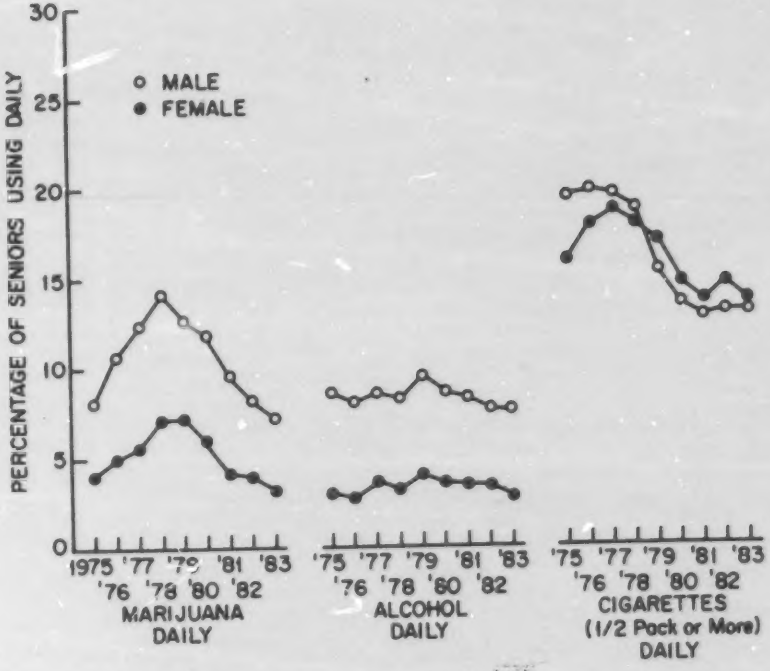


FIGURE F

Trends in Thirty-Day Prevalence of Daily Use of Marijuana, Alcohol, and Cigarettes by Sex



NOTE: Daily use for alcohol and marijuana is defined as use on 20 or more occasions in the past thirty days. Daily use of cigarettes is defined as smoking a half-pack or more per day in the past thirty days.

until 1981 (51%) before dropping slightly (to 48% in 1983). However, if amphetamine use is deleted from the statistics (see ◄ notations in Figure D) female use peaked in 1979 and then declined as well. (Note that the declines for both males and females are attributable to the declining marijuana use rates.) Obviously, the recent climb in reported amphetamine use has occurred somewhat more among females. For example, between 1978 and 1982 female amphetamine use (lifetime) rose by 16.4% (from 23.2% to 39.6%) while male use rose by 9.5% (from 22.3% to 31.8%). As noted earlier, these figures undoubtedly overestimate "true" amphetamine prevalence figures. The 1982 lifetime prevalence estimate for females, based on the two unrevised questionnaire forms, is a startling 38.5%; however, based on the three revised questionnaire forms, the corresponding estimate is considerably lower, 27.3%. This means, of course, that a high proportion (almost 30%) of the unrevised estimate for females is due to erroneous inclusion of non-prescription stimulants (largely diet pills). For males, the discrepancy is considerably smaller: the revised estimate is 26.0% vs. 31.7% for the unrevised estimate.

- Regarding the apparent parity between the sexes in the trends in the use of illicit drugs other than marijuana, it can be seen in Figure D that, when amphetamine use is excluded from the calculations, somewhat differential trends emerge for males vs. females. This is because there are more females today who use only amphetamines and the exclusion of amphetamines from the calculations results in a virtually stable trend line for females in the use of illicits other than marijuana or amphetamines.

- The sex differences in alcohol use have narrowed slightly since 1975. For example, the thirty-day prevalence rates for males and females differed by 12.8% in 1975 (75.0% vs. 62.2% respectively), but that difference was down to 10.1% by 1983. And, although there still remain substantial sex differences in daily use and occasions of binge drinking, there has been some narrowing of the differences there, as well. For example, between 1975 and 1983 the proportion of males admitting to having five drinks in a row during the prior two weeks showed a net increase of only 1.4% (from 49.0% to 50.4%), whereas a net increase of 4.6% occurred for females (from 26.4% to 31.0%).*

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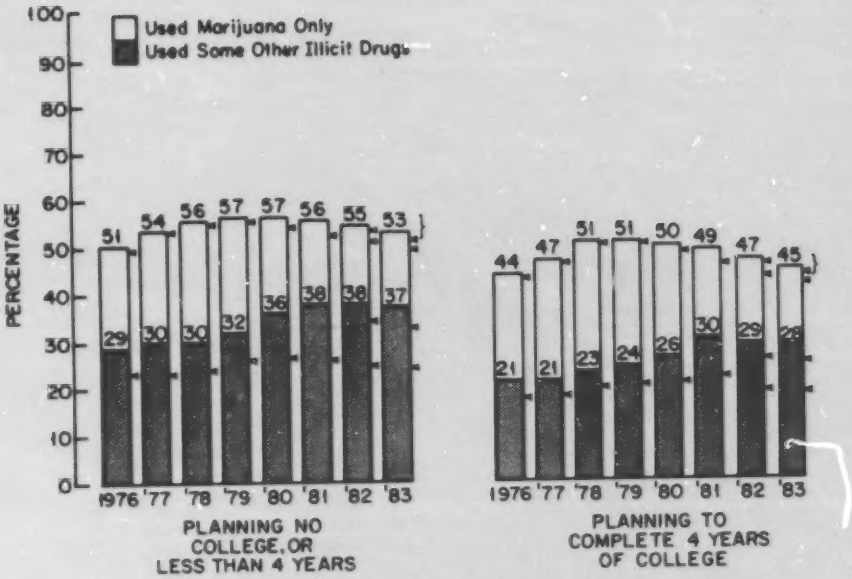
*It is worth noting that the same number of drinks produces substantially greater impact on the blood alcohol level of the average female than the average male, because of sex differences in body weight. Thus, sex differences in frequency of actually getting drunk may not be as great as the binge drinking statistics would indicate, since they are based on a fixed number of drinks.

FIGURE G

Trends in Annual Prevalence of an Illicit Drug Use Index by College Plans



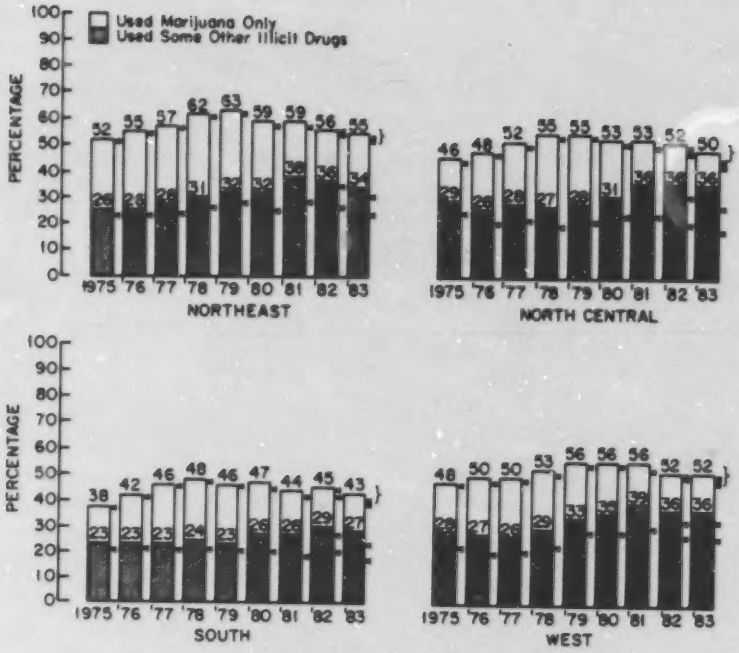
NOTES: Use of "some other illicit drugs" includes any use of hallucinogens, cocaine, and heroin, or any use which is not under a doctor's orders of other opiates, stimulants, sedatives, or tranquilizers.

◄ indicates the percentage which results if all stimulants are excluded from the definition of "illicit drugs." ◄ shows the percentage which results if only non-prescription stimulants are excluded.

The bracket near the top of a bar indicates the lower and upper limits of the 95% confidence interval.

FIGURE H

Trends in Annual Prevalence of an Illicit Drug Use Index
by Region of the Country



NOTES: See Figure G for relevant footnotes.

- Regarding cigarette smoking, we observed in 1977 that females for the first time caught up to males at the half-a-pack per day smoking level (Figure E). Then, between 1977 and 1981, both sexes showed a decline in the prevalence of such smoking; but use among males dropped more, resulting in a reversal of the sex differences. As of 1983, the proportions of males and females smoking at least a half pack a day differ very little (13.1% for males, 13.6% for females); and at the pack-a-day level there are slightly more males (7.0%) than females (7.0%). (At less frequent levels of smoking there is a somewhat larger sex difference, since there are more occasional smokers among females than among males.)

Trend Differences Related to College Plans

- Both college-bound and noncollege-bound students have been showing fairly parallel trends in overall illicit drug use over the last several years (see Figure G).*

- Changes in use of the specific drug classes have also been generally quite parallel for the two groups since 1976, with only minor exceptions.

Regional Differences in Trends

- In terms of the proportion of seniors using any illicit drug during the year, all four regions of the country reached their peaks in 1978 or 1979 (Figure H). In 1983, the Northeast is down 8% from its peak, the North Central and South are down by 5%, and the West is down by 4%.

- Until 1981, the proportion using an illicit drug other than marijuana (unadjusted) had been increasing in all regions. Since then, the Northeast and West have declined to 34% and 36%, respectively. The North Central has remained at 36%; only the South has increased, from 26% in 1981 to 27% in 1983. (As noted earlier, a major factor in the rise of illicit drug use other than marijuana had been an increase in reported amphetamine use. Such a rise appeared in all four regions; however, the rise from 1978 to 1981 was only 6% in the South, whereas in the other regions the percentages all had risen between 9% and 12%. In essence, the South has been least affected by both the rise and the fall in reported amphetamine use.)

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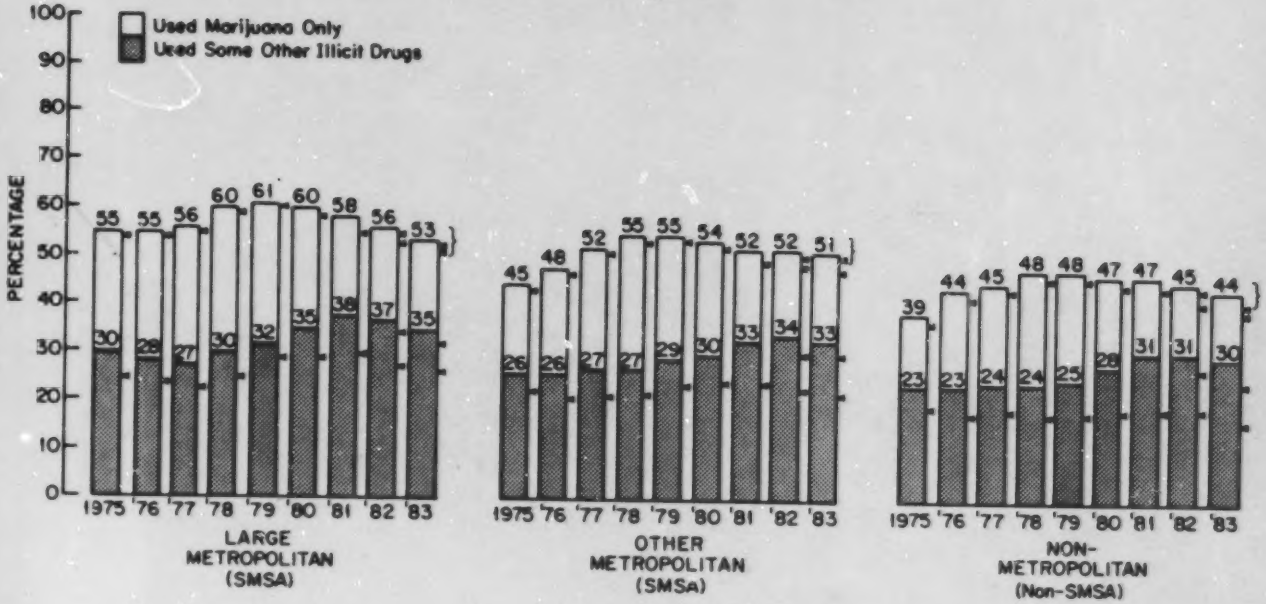
*Because of excessive missing data in 1975 on the variable measuring college plans, group comparisons are not presented for that year.

FIGURE I

Trends in Annual Prevalence of an Illicit Drug Use Index
by Population Density



NOTES: See Figure G for relevant footnotes.

- When amphetamine use is excluded, as shown by the arrow (◄) in Figure H, then a rather different picture appears for regional trends during the late seventies and early eighties. Use of illicits other than marijuana and amphetamines actually started to decline in the South and North Central in 1981—both regions having had fairly level rates of use prior to that. Rates in the West and the Northeast did not begin their decline until 1982, after a period of some increase in student involvement with such drugs (but not as great an increase as the "uncorrected" figures would suggest).

- Cocaine use is primarily responsible for the above-noted trends in the West and the Northeast. Between 1976 (when cocaine use in all four regions ranged from 5% to 8%) and 1981, annual prevalence rates in the West and the Northeast almost tripled. (In the North Central regions these rates only doubled by 1979 and 1980, and then began declining in 1981; while in the South annual prevalence of cocaine use showed a smaller rise through 1979, and then began declining). In 1982 cocaine use finally began to decline in the West and leveled in the Northeast.

  This year, however, annual use increased in both the South and West, while decreasing in the Northeast and North Central regions. The regional differences in cocaine use (e.g., in 1983 two-and-a-half times as many seniors in the West as in the South reported any use during the past year) have been among the most dramatic we have seen (see Table 4, also Tables 3 and 5).

- In the last few years, there has been a diminution in regional differences in hallucinogen use. In 1981, both the North Central and the West had annual rates that were about two and one-half times higher than the South (10.3%, and 10.4%, and 4.1%, respectively), and the Northeast was three times as high (12.9%). Because the South has since increased (to 5.2% in 1983), while the other regions decreased, the regions are now not as different as they were; the North Central is highest at 8.9%, less than twice as high as the South which still has the lowest rate of use.

Trend Differences Related to Population Density

- There appears to have been a peaking in 1979 in the proportions using any illicit drug in all three levels of community size (Figure I). Although the smaller metropolitan areas and the non-metropolitan areas never caught up completely with their larger counterparts, they did narrow the gap some between 1975 and 1979. Most of that narrowing was due to changing levels of marijuana use, and most of it occurred prior to 1978.

- The overall proportion involved in illicit drugs other than marijuana also has peaked in communities of all sizes, but not until 1981 or 1982. Up to 1981, the proportions reporting the use of some illicit drug other than marijuana had been increasing continuously (over a four-year period in the very large cities, and over a three-year period in the smaller metropolitan and non-metropolitan areas). As can be seen by the special notations in Figure I, almost all of this increase is attributable to the rise in reported amphetamine use (which likely is artifactual in part). The 1983 figures show decreases of one to two percent in all three levels of community size.

- The increase in cocaine use, although dramatic at all levels of urbanicity between 1976 and 1979, was greatest in the large cities. There has been a slight (but not statistically significant) decline in use in the large cities since 1980, and in the smaller cities since 1981. Cocaine use has been fairly stable for the last five years in the non-metropolitan areas.

- There is evidence of a decline in current alcohol use in the large cities in recent years. For example, thirty-day prevalence in the large cities is down by 9%, from 78% in 1980 to 69% in 1983; during the same interval, the small metropolitan areas decreased only 1% (from 71% to 70%), and the non-metropolitan areas did not change (69%). Similarly, daily use decreased between 1980 and 1983 by 2.5% in the large cities (7.1% to 4.6%), while the smaller cities increased by 0.3% (5.4% to 5.7%) and non-metropolitan areas decreased by 0.2% (6.1% to 5.9%). And binge drinking decreased by 6% (from 45% to 39%) in the large cities, compared to a 2% increased in other cities (39% to 41%) and a 1% increase in non-metropolitan areas (41% to 42%). These differential shifts result in less variation among the three levels of urbanicity in 1983 than there had been.

USE AT EARLIER GRADE LEVELS

In two of the five questionnaire forms used in the study, respondents are asked to indicate the grade in which they were enrolled when they first tried each class of drugs. Graphic presentations on a drug-by-drug basis of the trends for earlier grade levels and of the changing age-at-onset curves for the various graduating classes are contained in the large 1978, 1981, and 1983 reports from the study (cited earlier). For the purposes of these highlights, only some of these figures are included. Table 10 gives the percent of the 1983 seniors who first tried each drug at each of the earlier grade levels.

Grade Level at First Use

- Initial experimentation with most illicit drugs occurs during the final three years of high school. Each illegal drug, except marijuana, had been used by no more than 11% of the class of 1983 by the time they entered tenth grade. (See Table 10.)

- However, for marijuana, alcohol, and cigarettes, most of the initial experiences took place before high school. For example, daily cigarette smoking was begun by 15% prior to tenth grade vs. only an additional 9% in high school (i.e., in grades ten through twelve). The figures for initial use of alcohol are 56% prior to and 36% during high school; and for marijuana, 34% prior to and 24% during high school.

- Among inhalant users (unadjusted for nitrite under-reporting), over half had their first experience prior to tenth grade. However, this unadjusted statistic probably reflects the predominant pattern for such inhalants as glues and aerosols, which tend to be used primarily at younger ages. We know that the under-reporting of use of amyl and butyl nitrites in this category yields an understatement of the number of students who initiated inhalant use in the upper grade levels. This is apparent from age-at-first-use statistics for this subclass in Table 10.

- PCP use shows a relatively early age of initiation as well, with half of the eventual users having started before high school.

- About half of those who report any barbiturate use report having started before high school.

- For each of the other illicit drugs, less than half of the users had begun use prior to tenth grade. For most of these drugs, the corresponding proportion is roughly from one-fifth to two-fifths. These data indicate that

TABLE 10

Grade of First Use for Sixteen Types of Drugs, Class of 1983

Grade in which drug was first used	Marijuana	Inhalants [a]	Amyl / Butyl Nitrites	Hallucinogens [a]	LSD	PCP	Cocaine	Heroin	Other Opiates	Stimulants [b] (adjusted)	Sedatives	Barbiturates	Methaqualone	Tranquilizers	Alcohol	Cigarettes (Daily)
6th	3.0	2.4	0.7	0.1	0.1	0.4	0.2	0.0	0.4	0.1	0.1	0.2	0.1	0.4	9.6	3.3
7-8th	13.3	3.3	1.5	1.0	0.5	1.0	0.6	0.0	0.9	2.7	1.9	1.6	1.0	2.2	21.8	6.3
9th	13.2	2.4	2.2	2.7	2.0	1.4	2.2	0.2	2.6	7.5	4.0	3.1	2.8	3.4	20.9	5.4
10th	11.5	1.7	1.2	3.3	2.5	1.1	3.4	0.2	2.0	7.7	4.0	2.5	2.9	3.2	18.5	3.9
11th	7.9	1.9	1.9	3.0	2.3	1.1	5.3	0.5	2.4	5.3	3.0	1.8	2.3	2.4	12.1	3.6
12th	4.1	1.7	0.9	1.8	1.5	0.6	4.5	0.2	1.1	3.5	1.3	0.7	0.9	1.6	5.7	1.6
Never used	43.0	86.4	91.6	88.1	91.1	94.4	83.8	98.8	90.6	73.1	85.6	90.1	89.9	86.7	7.4	75.8

NOTE: This question was asked in two of the five forms (N = approximately 5800), except for inhalants, PCP, and the nitrites which were asked about in only one form (N = approximately 2900). Only one form is used for stimulants in this table.

[a] Unadjusted for known underreporting of certain drugs. See page 18.

[b] Adjusted for overreporting of the non-prescription stimulants.

significant minorities of eventual users of illicit drugs are initiated prior to tenth grade.

- Stimulant use in the class of 1983 shows a particularly large jump in incidence in ninth and tenth grades. This is partly due to an upward secular trend in the use of this drug in 1980 and 1981. Earlier classes showed somewhat different relative incidence rates across the grade levels, as Figure J-5 helps to illustrate.

Trends in Use at Earlier Grade Levels

- Using the retrospective data provided by members of each senior class concerning their grade at first use, it is possible to reconstruct lifetime prevalence curves at lower grade levels during the years when each class was at those various grade levels. Obviously, data from eventual dropouts from school are not included in any of the curves. Figures J-1 through J-18 show the reconstructed lifetime prevalence curves for earlier grade levels for a number of drugs.

- Figure J-1 provides the trends at each grade level for lifetime use of any illicit drug. It shows that for all grade levels there was a continuous increase in illicit drug involvement through the seventies. The increase is fortunately quite small for use prior to sixth grade; only 1.1% of the class of 1975 reported having used an illicit drug before 6th grade (which was in 1969 for that class), but the figure has increased modestly, and for the class of 1983 is at 3.8% (which was in 1977 for that class). The lines for the other grade levels all show much steeper upward slopes, indicating that the more recent graduating classes had initiated illicit drug use earlier than the less recent classes. For example, about 49% of the class of 1983 had used some illicit drug by the end of grade 10, compared to 37% of the class of 1975.

- Beginning in 1980, though, there is a leveling off at the high school level (grades 10, 11, and 12) in the proportion becoming involved in illicit drugs. There may well be a leveling (or even a decline) in the lower grades in the same period; but insufficient data are available at present to confirm that fact.

- Most of the increase in any illicit drug use was due to increasing proportions using marijuana. We know this from the results in Figure J-2 showing trends for each grade level in the proportion having used any illicit drug other than marijuana in their lifetime. Compared to Figure J-4 for marijuana use, these trend lines are relatively flat throughout the seventies and, if anything, began to taper off among ninth and tenth grade between 1975 and 1977. The biggest cause of the

increases in these curves from 1978 to 1981 was the rise in reports of amphetamine use. As noted earlier, we suspect that at least some of this rise is artifactual. If amphetamine use is removed from the calculations, even greater stability is shown in the proportion using illicits other than marijuana or amphetamines. (See Figure J-3).

- As can be seen in Figure J-4, for the years covered across the decade of the 70's, marijuana use had been rising steadily at all grade levels down through seventh grade. Beginning in 1979, marijuana involvement began to decline for grades 9 through 12. Further, the trend lines for grade 8 shows a decelerating curve, strongly suggesting that junior high school use reached an asymptote by the end of the seventies, as well. Importantly, there appears to have been little ripple effect in marijuana use down to the elementary schools, through 1977. (Use prior to 6th grade rose only slightly, from 0.6% for the class of 1975 to 3.0% for the class of 1983.) The three most recent national household surveys by NIDA would suggest that this continues to be true: the proportion of 12-to 13-year-olds reporting any experience with marijuana was 6% in 1971, and was constant at 8% in 1977, 1979, and 1982. Presumably sixth graders would have even lower absolute rates since the average age of sixth graders is less than twelve.*

- Cocaine use at earlier grade levels is given in Figure J-5. One clear contrast to the marijuana pattern is that most initiation into cocaine use takes place in the last two years of high school (rather than earlier, as is the case for marijuana). Further, most of the increase in cocaine experience between 1976 and 1980 occurred in the 11th and 12th grades, not below. Since 1980, experience with cocaine has remained level in the three grades for which data exist, i.e., grades 10 through 12.

- The lifetime prevalence statistics for stimulants peaked briefly for grade levels 9 through 12 during the mid 70's. (See Figure J-6.) However, it showed a sharp rise in the late 70's at virtually all grade levels. As has been stated repeatedly, we believe that some—perhaps most—of this recent upturn is artifactual in the sense that non-prescription stimulants account for much of it. However, regardless of what accounts for it, there was a clear upward secular trend—that is, one derived across all cohorts and grade levels—beginning in 1979. The data from the

*See National Survey on Drug Abuse: Main Findings 1982 by J.D. Miller et al. Rockville, MD: National Institute on Drug Abuse, 1983.

class of 1983 give the first indication of a reversal of this trend.

- Lifetime prevalence of hallucinogen use (unadjusted for underreporting of PCP) began declining among students at most grade levels in the mid 1970's (Figure J-7, and this gradual decline continues in the upper grades. However, it appears that a leveling and possibly some reversal may have occurred in 1979 and 1980 in the lower grades, due almost entirely to the trends in LSD use. (The trend curves for LSD (not shown) are extremely similar in shape, though lower in level, of course.)

- While there is relatively little trend data for PCP, since questions about grade of first use of PCP were not included until 1980, some interesting results emerge. From the rather checkered data available, it appears that the sharp downturn began around 1979 (see Figure J-8). If the hallucinogen figure (J-7) were adjusted for underreporting of PCP use, it also would be showing even more downturn in recent years.

- Questions about age at first use for inhalants (unadjusted for the nitrites) have been asked only since 1978. The retrospective trend curves (Figure J-9) suggest that during the mid 1970's, experience with inhalants decreased for most grade levels and then began to rise again.

- Since grade-at-first-use data have been gathered for the nitrites beginning in 1979, only limited retrospective data exist (Figure J-10). These do not show the recent increase observed for the overall inhalant category. In fact, they show a decline in experience with the nitrites.

- Figure J-11 shows that the lifetime prevalence of sedative use, like stimulant use, began declining for all grade levels in the mid 70's, then shows some reversal in the late 70's. (Recall that annual prevalence observed for seniors had been declining steadily from 1975 to 1979.) As the graphs for the two subclasses of sedatives—barbiturates and methaqualone—show, the trend lines have been different for them at earlier grade levels as well as in twelfth grade (see Figures J-12 and J-13). Since about 1974 or 1975, lifetime prevalence of barbiturate use had fallen off sharply at all grade levels for all classes until the late 70's; since then there has been little change.

  Methaqualone use started to fall off at about the same time as barbiturate use in nearly all grade levels, but dropped rather little and then flattened. Between 1978 and 1981 there had been a fair increase in use in

nearly all grade levels; but the more recent statistics for the upper grades show a leveling (while the "current use" statistics for twelfth grades actually show a substantial decline).

- Lifetime prevalence of tranquilizer use (Figure J-14) also began to decline at all grade levels in the mid-70's. Overall, it would appear that the tranquilizer trend lines have been following a similar course to that of sedatives. So far, the curves are different only in that tranquilizer use continued a steady decline among eleventh and twelfth graders, while sedative use did not.

- Though a little difficult to see, the heroin lifetime prevalence figures for grades 9 through 12 all began declining in the mid 1970's, then leveled, and show no evidence of reversal as yet (Figure J-15).

- The lifetime prevalence of use of opiates other than heroin has remained quite flat at all grade levels since the mid-70's (Figure J-16).

- Figure J-17 presents the lifetime prevalence curves for cigarette smoking on a daily basis. It shows dramatically that initiation to daily smoking was beginning to peak at the lower grade levels in the mid 1970's. This peaking did not become apparent among high school seniors until a few years later. In essence, these changes reflect in large part cohort effects—changes which show up consistently across the age band for certain class cohorts. Because of the highly addictive nature of nicotine, this is a type of drug-using behavior in which one would expect to observe enduring differences between cohorts if any are observed at a formative age. Unfortunately, the most recent cohort indicates a bottoming of this dramatic decline, but so far no clear evidence of a reversal.

- The comparable curves for lifetime prevalence of alcohol use at earlier grade levels (Figure J-18) are very flat, suggesting that very little change in initiation rates took place at earlier grade levels across the years covered. Recall, however, that among seniors a very modest increase in the drinking of a large quantity of alcohol on occasion did occur between 1975 and 1979. It is possible that similar shifts took place in lower grade levels, as well.

FIGURE J-1

Use of Any Illicit Drug: Trends in Lifetime Prevalence for Earlier Grade Levels Based on Retrospective Reports from Seniors

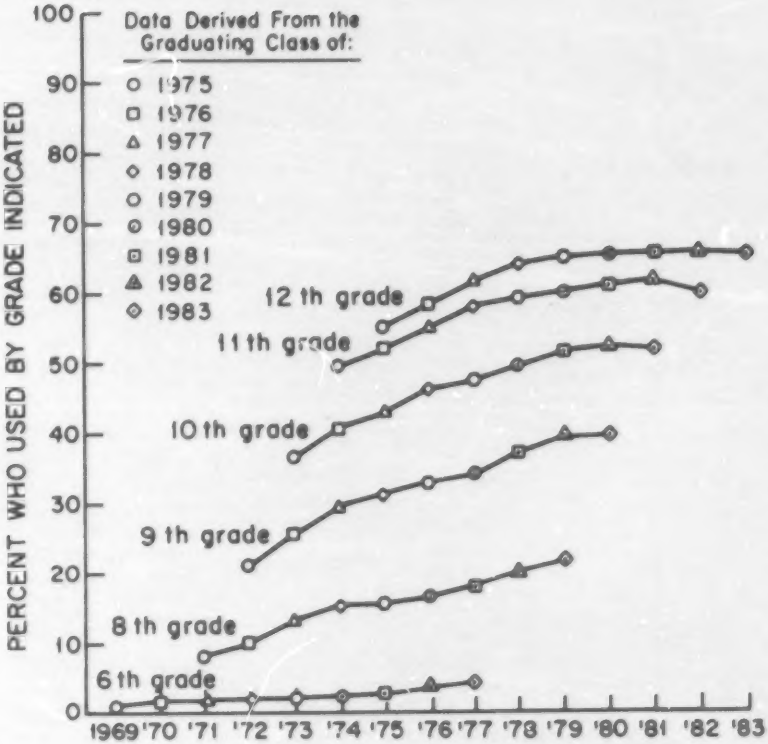


FIGURE J-2

Use of Any Illicit Drug Other Than Marijuana: Trends in Lifetime Prevalence for Earlier Grade Levels
Based on Retrospective Reports from Seniors

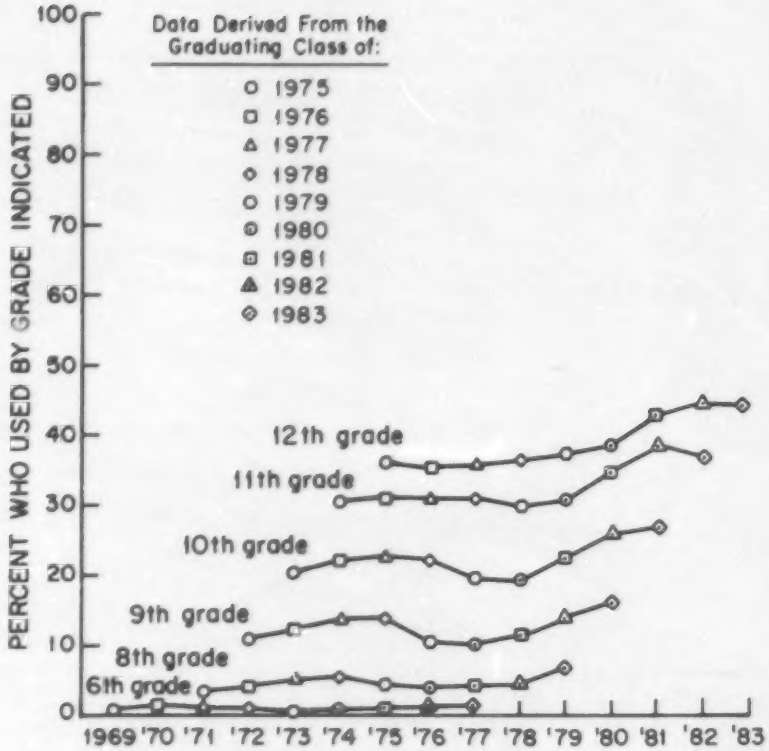


FIGURE J-3

Use of Any Illicit Drug Other Than Marijuana or Amphetamines
Trends in Lifetime Prevalence for Earlier Grade Levels
Based on Retrospective Reports from Seniors

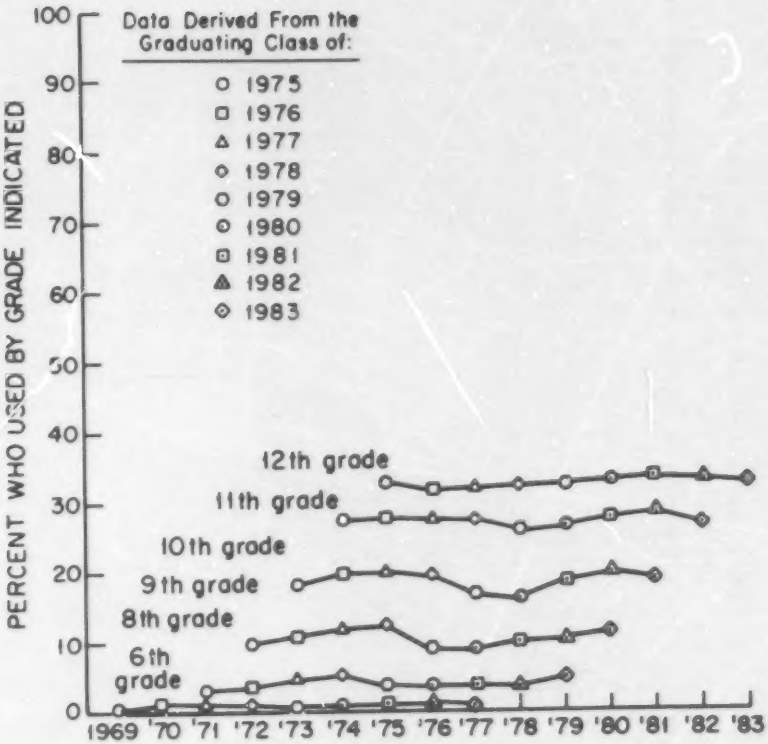


FIGURE J-4

Marijuana: Trends in Lifetime Prevalence for Earlier Grade Levels
Based on Retrospective Reports from Seniors

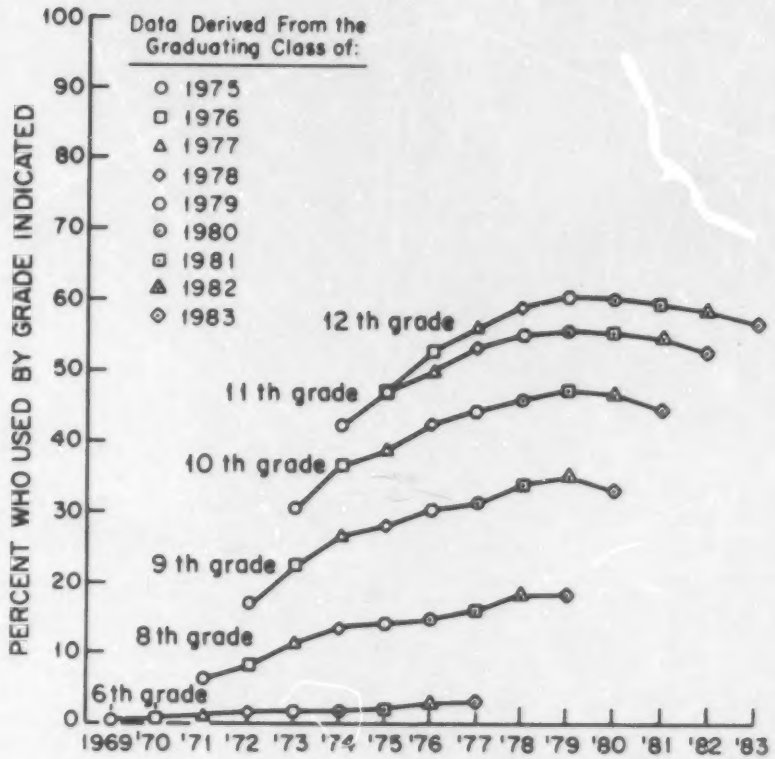


FIGURE J-3

Cocaine: Trends in Lifetime Prevalence for Earlier Grade Levels Based on Retrospective Reports from Seniors

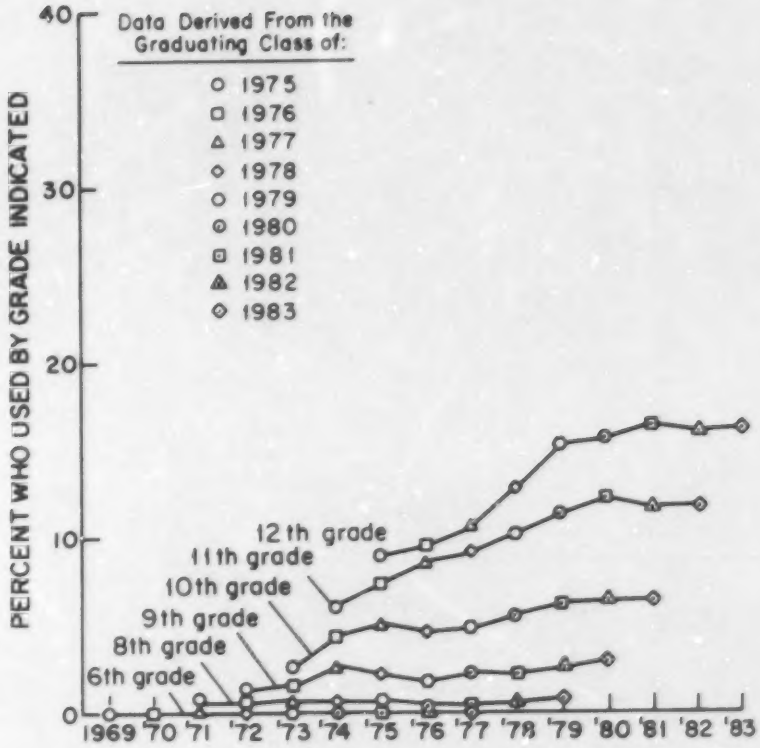


FIGURE 1-6

Stimulants: Trends in Lifetime Prevalence for Earlier Grade Levels Based on Retrospective Reports from Seniors

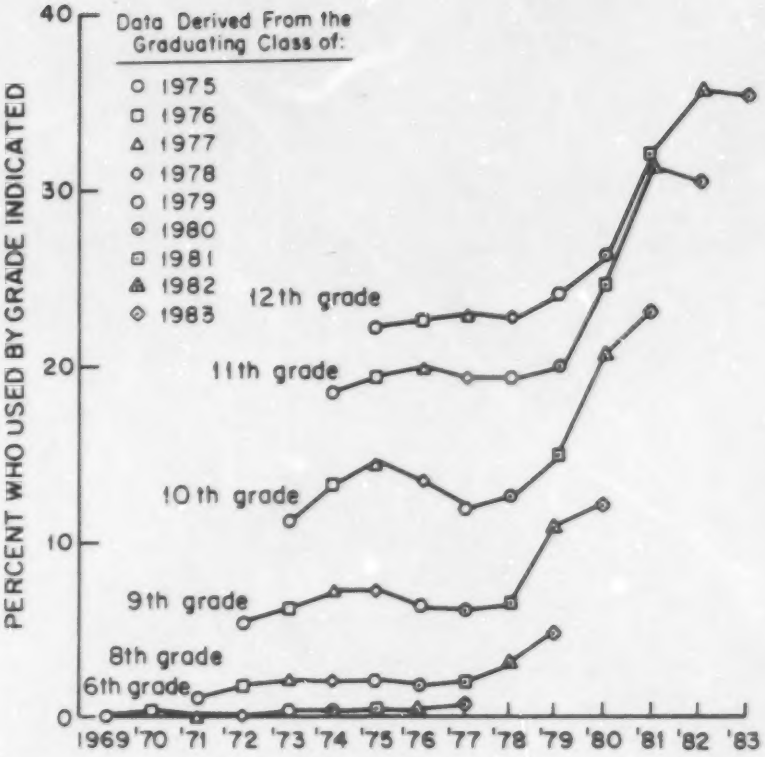


FIGURE J-7

Hallucinogens: Trends in Lifetime Prevalence for Earlier Grade Levels
Based on Retrospective Reports from Seniors

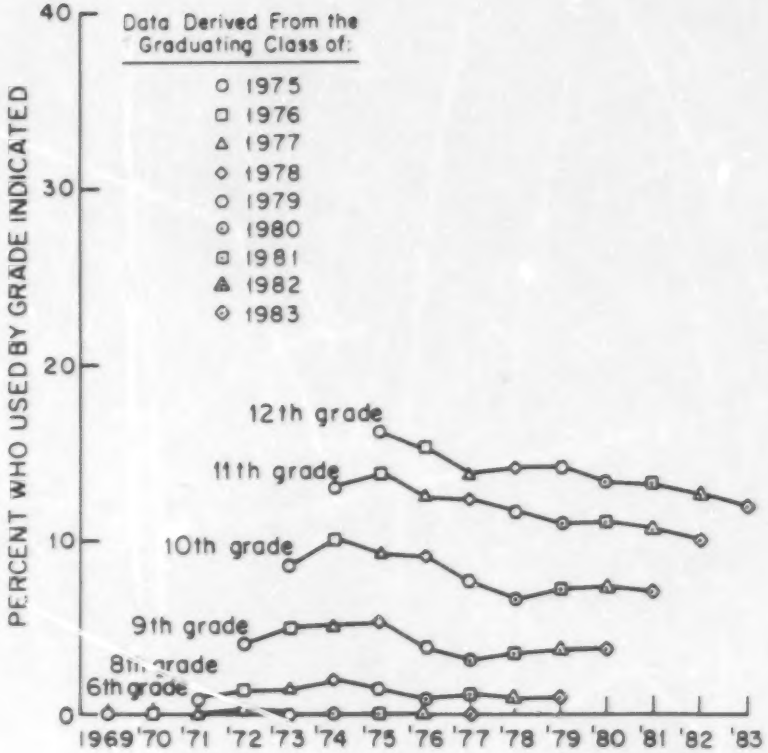


FIGURE J-8

PCP: Trends in Lifetime Prevalence for Earlier Grade Levels
Based on Retrospective Reports from Seniors

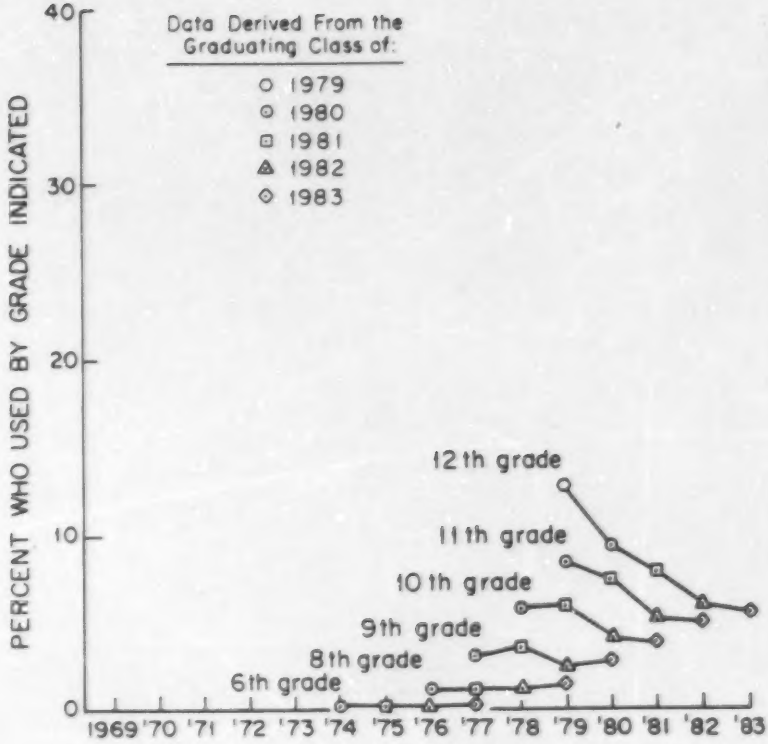


FIGURE 3-9

Inhalants: Trends in Lifetime Prevalence for Earlier Grade Levels
Based on Retrospective Reports from Seniors

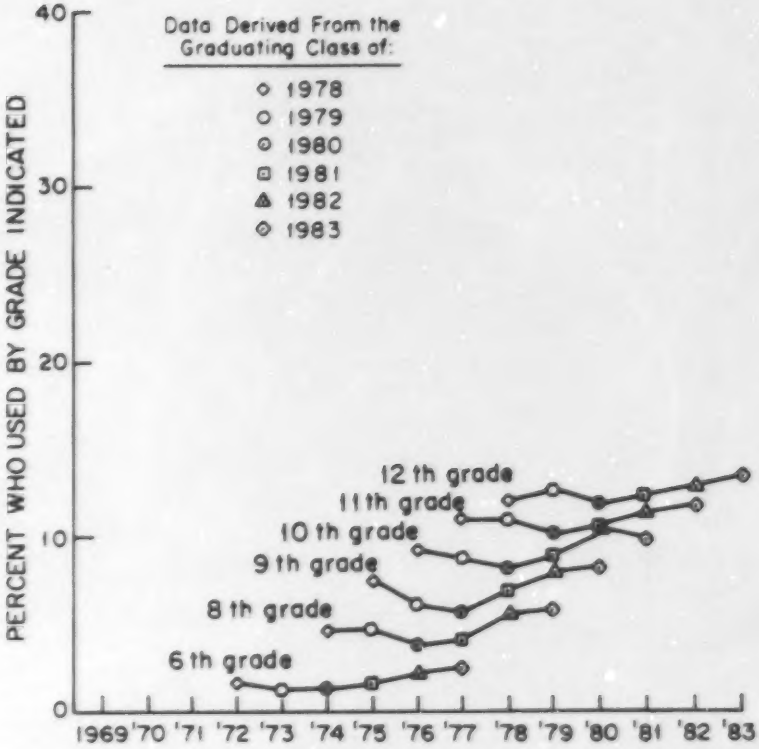


FIGURE 3-10

Nitrites: Trends in Lifetime Prevalence for Earlier Grade Levels Based on Retrospective Reports from Seniors

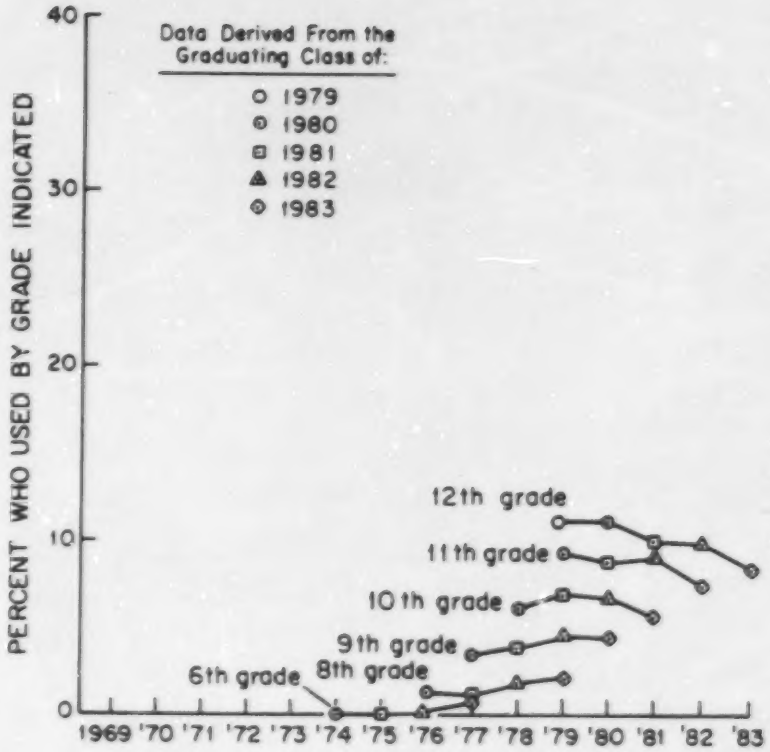


FIGURE J-11

Sedatives: Trends in Lifetime Prevalence for Earlier Grade Levels Based on Retrospective Reports from Seniors

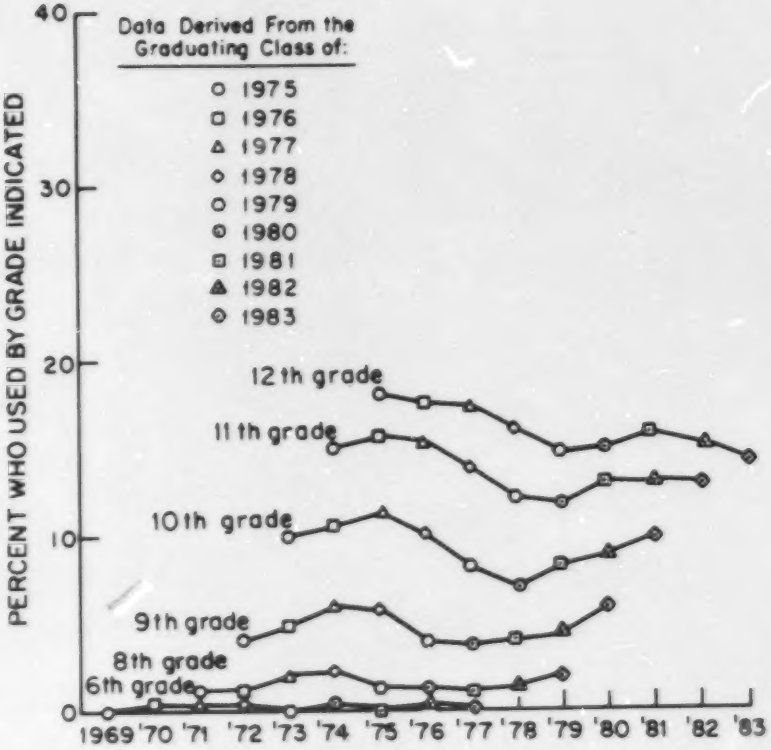


FIGURE J-12

Barbiturates: Trends in Lifetime Prevalence for Earlier Grade Levels
Based on Retrospective Reports from Seniors

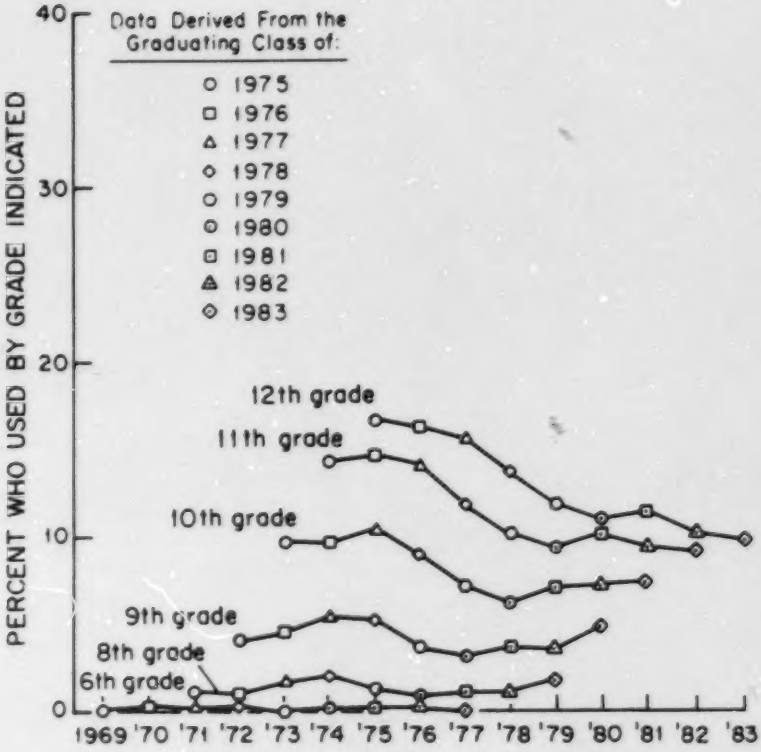


FIGURE J-13

Methaqualone: Trends in Lifetime Prevalence for Earlier Grade Levels
Based on Retrospective Reports from Seniors

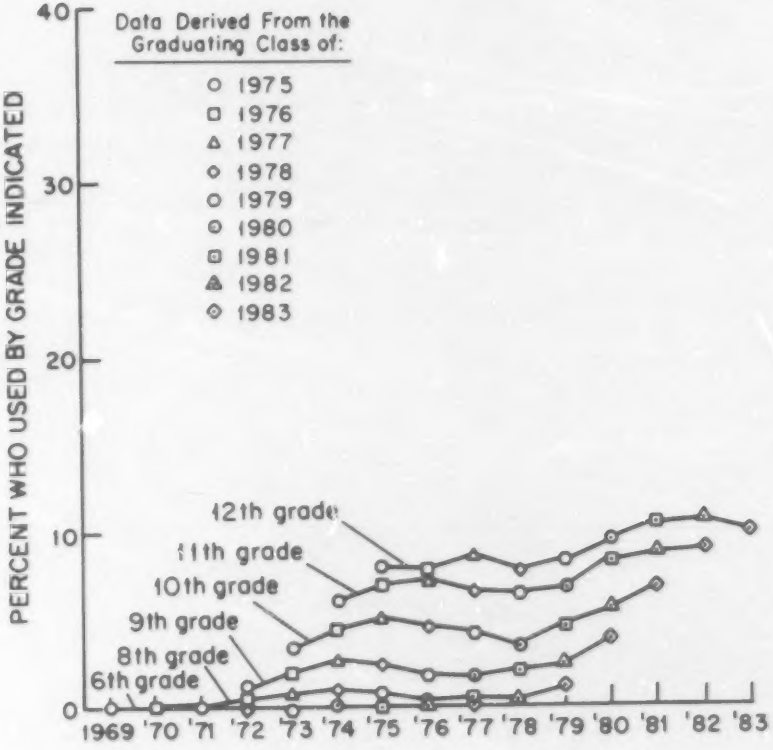


FIGURE J-14

Tranquilizers: Trends in Lifetime Prevalence for Earlier Grade Levels
Based on Retrospective Reports from Seniors

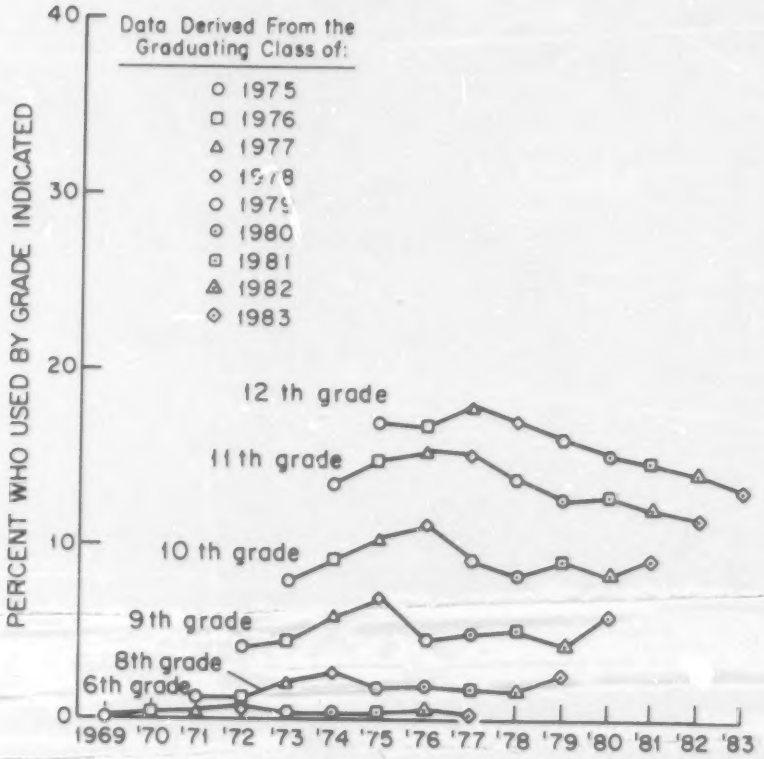


FIGURE J-15

Heroin: Trends in Lifetime Prevalence for Earlier Grade Levels Based on Retrospective Reports from Seniors

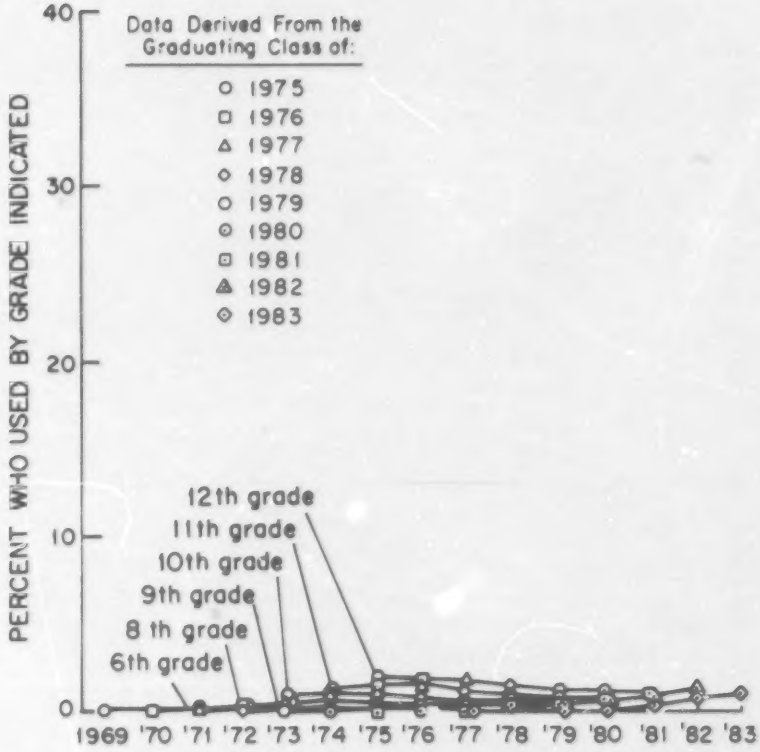


FIGURE J-16

Other Opiates: Trends in Lifetime Prevalence for Earlier Grade Levels
Based on Retrospective Reports from Seniors

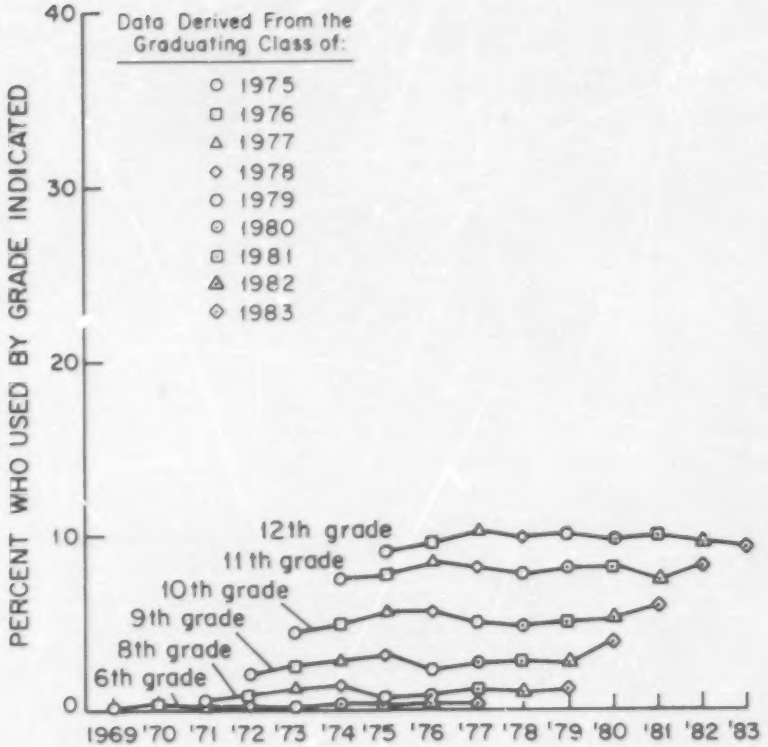


FIGURE J-17

Cigarette Smoking on a Daily Basis: Trends in Lifetime Prevalence for Earlier Grade Levels Based on Retrospective Reports from Seniors

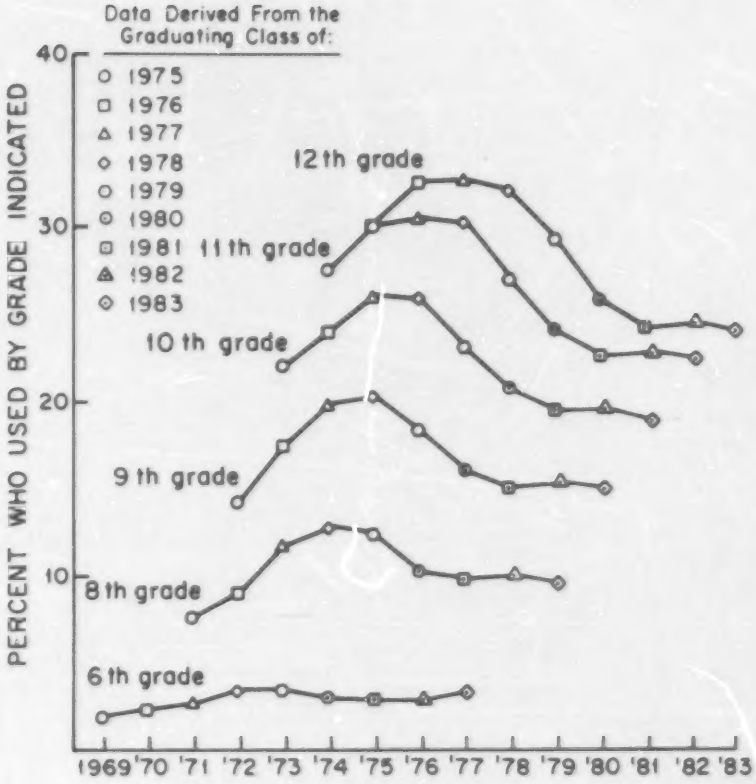
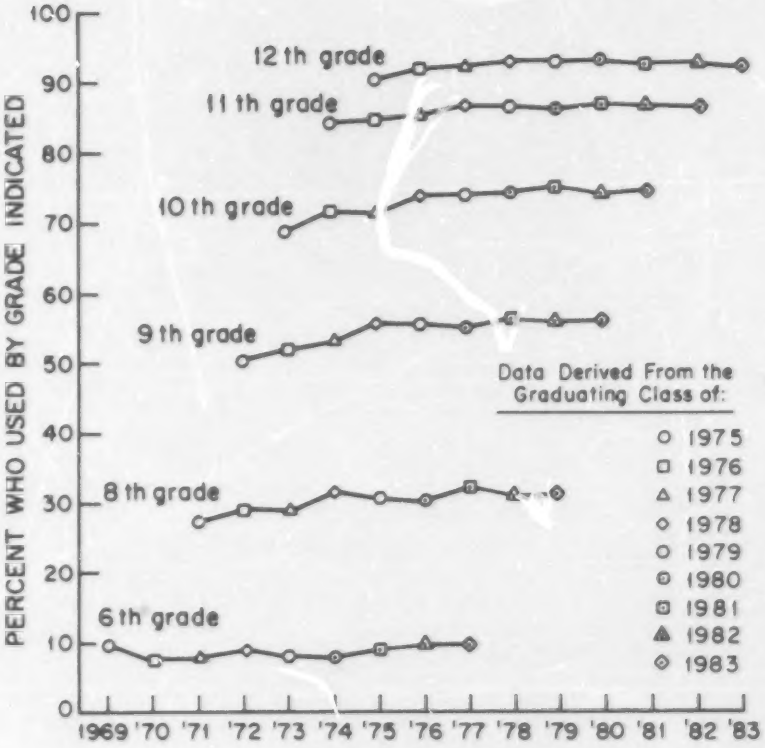


FIGURE J-18

Alcohol: Trends in Lifetime Prevalence for Earlier Grade Levels Based on Retrospective Reports from Seniors



DEGREE AND DURATION OF HIGHS

On one of the five questionnaire forms, seniors who report use of a drug during the prior twelve months are asked how long they usually stay high and how high they usually get on that drug. These measures were developed both to help characterize the drug-using event and to provide indirect measures of dose or quantity of drugs consumed.

- Figure K shows the proportion of 1983 seniors who say that they usually get "not at all" high, "a little" high, "moderately" high, or "very" high when they use a given type of drug. The percentages are based on all respondents who report use of the given drug class in the previous twelve months, and therefore each bar cumulates to 100%. The ordering from left to right is based on the percentage of users of each drug who report that they usually get "very" high. (The width of each bar is proportional to the percentage of all seniors having used the drug class in the previous year; this should serve as a reminder that even though a large percentage of users of a drug may get very high, they may represent only a small proportion of all seniors.)

- The drugs which usually result in intense highs are the hallucinogens (LSD and other hallucinogens), heroin and methaqualone (Quaaludes). (Actually, heroin has been omitted from Figure K because of the small number of cases available for a given year, but an averaging across years indicates that it would rank very close to LSD.)

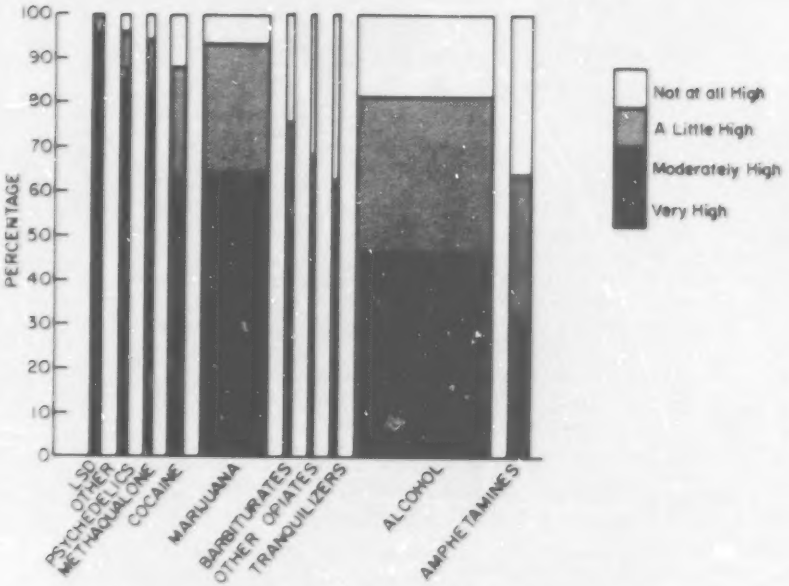
- Next come cocaine and marijuana, with nearly two-thirds of the users of each saying they usually get moderately high or very high when using the drug.

- The four major psychotherapeutic drug classes—barbiturates, opiates other than heroin, tranquilizers and stimulants—are less often used to get high; but substantial proportions of users (from 31% for stimulants to 56% for barbiturates) still say they usually get moderately or very high after taking these drugs.

- Relatively few of the many seniors using alcohol say that they usually get very high when drinking, although nearly half usually get at least moderately high. However, for a given individual we would expect more variability from occasion to occasion in the degree of intoxication achieved with alcohol than with most of the other drugs. Therefore, many drinkers surely get very high at least sometimes, even if that is not "usually" the case.

FIGURE K

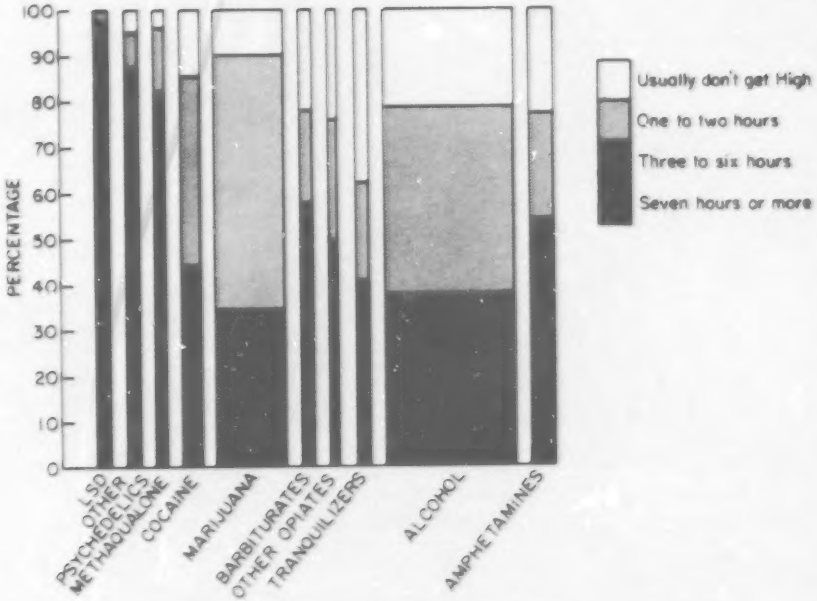
Degree of High Attained by Recent Users



NOTE: The width of each bar is proportionate to the number of seniors reporting any use of each drug in the prior 12 months. Heroin is not included in this figure because these particular questions are not asked of the small number of heroin users.

FIGURE L

Duration of High Attained by Recent Users



NOTE: The width of each bar is proportionate to the number of seniors reporting any use of each drug in the prior 12 months. Heroin is not included in this figure because these particular questions are not asked of the small number of heroin users.

- Figure L presents the data on the duration of the highs usually obtained by users of each class of drugs. The drugs are arranged in the same order as for intensity of highs to permit an examination of the amount of correspondence between the degree and duration of highs.

- As can be seen in Figure L, those drugs which result in the most intense highs generally tend to result in the longest highs. For example, LSD, other hallucinogens, and methaqualone rank one through three respectively on both dimensions, with substantial proportions (from 20% to 54%) of the users of these drugs saying they usually stay high for seven hours or more. And alcohol ranks last on both dimensions; most users stay high for two hours or less.

- However, there is not a perfect correspondence between degree and duration of highs. The highs achieved with marijuana, although intense for many users, tend to be relatively short-lived in comparison with most other drugs. The majority of users usually stay high two hours or less, and the modal and median time is one to two hours.

- For cocaine users the modal high is one to two hours, though nearly as many stay high three to six hours. Longer highs are reported by 10%.

- The modal and median duration of highs for barbiturates and stimulants are three to six hours. Users of opiates other than heroin and tranquilizers report highs of slightly shorter duration.

- In sum, the drugs vary considerably in both the duration and degree of the highs usually obtained with them. (These data obviously do not address the qualitative differences in the experiences of being "high".) Sizeable proportions of the users of all of these drugs report that they usually get high for at least three hours per occasion, and for a number of drugs appreciable proportions usually stay high for seven hours or more.

Trends in Degree and Duration of Highs

- There have been several important shifts over the last several years in the degree or duration of highs usually experienced by users of the various drugs.

- The average duration of the highs reported by LSD users has declined somewhat since the mid- to late 1970's. In 1975, 74% of the recent LSD users reported usually staying high seven hours or more; by 1983 this proportion had dropped to 54%. The subjectively

reported degree of high usually obtained has also dropped slightly, from 79% of users saying "very high" in 1975 to 69% of users in 1983.

- For cocaine, the proportion who say they usually get high for only two hours or less has increased from 36% in 1977 to 56% in 1983, reflecting a substantial shortening in the average duration of highs. There has also been some modest decline in the average degree of high attained, with 77% of users usually getting moderately or very high in 1977, compared to 62% in 1983.

- For opiates other than heroin, there had been a fairly steady decline between 1975 and 1979 in both the intensity of the highs usually experienced and in the duration of those highs. In 1975, 39% said they usually got "very high" vs. 18% in 1979. The proportion usually staying high for seven or more hours dropped from 28% in 1975 to 13% in 1979. Since 1979, the degree and duration of highs experienced with this class of drugs has remained quite constant.

- Stimulants have shown a substantial decrease in the proportion of recent users usually getting very high or moderately high (down from 60% in 1975 to 31% in 1983). Consistent with this, the proportion of users saying they simply "don't take them to get high" increased from 9% in 1975 to 24% by 1983. In addition, the average reported duration of stimulant highs has been declining; 41% of the 1975 users said they usually stayed high seven or more hours vs. only 12% of the 1983 users.*

- These substantial decreases in both the degree and the duration of highs strongly suggest that there has been some shift in the purposes for which stimulants are being used. An examination of data on self-reported reasons for use tends to confirm this conclusion. The proportion of all seniors who reported both using "amphetamines" in the prior year and checking "to stay awake" as one of their reasons for use, rose from 8% in 1976 to 15% in 1981. There was also a similar pattern of increase in the proportion of all seniors who reported using "to lose weight" (up from 4% in 1976 to

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*The questionnaire form containing the questions on degree and duration of highs is one on which the amphetamine questions were clarified in 1982, to eliminate the inappropriate inclusion of non-prescription stimulants. One might have expected this change to have increased the degree and duration of highs reported, given that real amphetamines would be expected to have greater psychological impact on the average; but the trends still continued downward this year.

10% in 1981) as well as a similar pattern for the proportion who checked "to get more energy" (up from 9% in 1976 to 15% in 1981). When the revised questions on amphetamines were introduced in 1982—making it more clear that look-alikes and over-the-counter drugs should be excluded—there still resulted higher proportions of all seniors in 1982 and 1983 using for each of these instrumental reasons than in 1976 (i.e., 9% in 1983 used to "stay awake" vs. 8% in 1976, 6% to "lose weight" vs. 4% in 1976, and 11% to "get more energy" vs. 9% in 1976). However, these numbers are not as high as in 1981, since some of the seniors whose answers were included in the 1981 results must have been using non-prescription stimulants for these purposes. In sum, we conclude that there has been a distinct increase in the use of amphetamines for these non-recreational purposes—purposes which are among the most cited of all sixteen which might have been checked.

- There also, however, appears to have been at least some increase in recreational use as well, though clearly not as steep an increase as the trends in overall use might suggest. The data on exposure to people using amphetamines "to get high or for kicks", which will be discussed further in a section below, show a definite increase between 1976 and 1981 (there was a rise of 8% just between 1979 and 1981). There was no further increase in exposure to use for those purposes in 1982, however, suggesting that recreational use, as well as overall use, had leveled off, and this year there has been a decrease in such exposure.

- There is some evidence in the last few years that the degree and duration of highs usually achieved by barbiturate users and methaqualone users has been decreasing. The largest change has been in the duration of methaqualone highs, which dropped sharply in the last four years.

- For marijuana there has been some general downward trending since 1978 in the degree of the highs usually obtained. In 1978, 27% of users said they usually get "very high"—a figure which dropped to 20% by 1981; there was a slight (3%) reversal of this trend in 1982, but it is down again this year, to 22%. There have also been some interesting changes taking place in the duration figures. Recall that most marijuana users say they usually stay high either one to two hours or three to six hours. Since 1975 there has been a steady shift in the proportions selecting each of these two categories: a lower proportion of recent users answered three to six hours in 1983 (30% vs. 45% in 1975) while a higher proportion answered one to two hours in 1983 (56% vs. 40% in 1975). Until 1979 this shift could have been due almost entirely to the fact that progressively more seniors were using marijuana; and the users in

more recent classes, who would not have been users in earlier classes, probably tended to be relatively light users. We deduce this from the fact that the percentage of all seniors reporting three to six hour highs remained relatively unchanged from 1975 to 1979, while the percentage of all seniors reporting only one to two hour highs had been increasing steadily (from 16% in 1975 to 25% in 1979).

However, the overall prevalence rate did not increase over the past four years (annual prevalence actually dropped by 9%), but the shift toward shorter average highs continued. Thus we must attribute this recent shift to another factor, and the one which seems most likely is a general shift (even among the most marijuana-prone segment) toward a less frequent (or less intense) use of the drug. The drop in daily prevalence, over the last four years, which certainly is disproportionate to the drop in overall prevalence, is consistent with this interpretation. Also consistent is the fact that the average number of "joints" smoked per day (among those who reported any use in the prior month) has been dropping. In 1976, 49% of the current users of marijuana indicated that they averaged less than one "joint" per day in the prior 30 days, but by 1983 this proportion had risen to 59%. In sum, not only are fewer high school students now using marijuana, but those who are using seem to be using less frequently and to be taking smaller doses per occasion.

- For hallucinogens other than LSD, taken as a class, there has been a very slight decline since 1975 in the duration of highs usually experienced, though not in the intensity of the highs.

- There are no clearly discernible patterns in the intensity or duration of the highs being experienced with the remaining classes of drugs on which we have the relevant data—i.e., tranquilizers and alcohol. (Data have not been collected for highs experienced in the use of inhalants, the nitrites specifically, or PCP specifically; and the number of admitted heroin users on a single questionnaire form is inadequate to estimate trends reliably.)

ATTITUDES AND BELIEFS ABOUT DRUGS

This section presents the cross-time results for three sets of attitude and belief questions. One set concerns seniors' views about how harmful various kinds of drug use would be for the user, the second asks how much they personally disapprove of various kinds of drug use, and the third deals with attitudes on the legality of using various drugs under different conditions. (The next section covers the closely related topics of parents' and friends' attitudes about drugs, as the seniors perceive them.)

As the data below show, overall percentages disapproving various drugs, and the percentages believing their use to involve serious risk, both tend to parallel the percentages of actual users. Thus, for example, of the illicit drugs marijuana is the most frequently used and the least likely to be seen as risky to use. This and many other such parallels suggest that the individuals who use a drug are less likely to disapprove use of it or to view its use as involving risk. A series of individual-level analyses of these data confirms this conclusion: strong correlations exist between individual use of drugs and the various attitudes and beliefs about those drugs. Those seniors who use a given drug also are more likely to approve its use, downplay its risks, and report their own parents and friends as being at least somewhat more accepting of its use.

The attitudes and beliefs about drug use reported below have been changing during recent years, along with actual behavior. In particular, views about marijuana use, and legal sanctions against use, have shown important trends.

Beginning in 1979, scientists, policy makers, and in particular the electronic and printed media, have given considerable attention to the increasing levels of regular marijuana use among young people, and to the potential hazards associated with such use. As will be seen below, over the last five years attitudes about regular use of marijuana have shifted dramatically in a more conservative direction—a shift which coincides with a reversal in the previous rapid rise of daily use, and which very likely reflects the impact of this increased public attention.

Perceived Harmfulness of Drugs

Beliefs in 1983 about Harmfulness

- A substantial majority of high school seniors perceive regular use of any of the illicit drugs, as entailing "great risk" of harm for the user (see Table 11). Some 86% of the sample feel this way about heroin—the highest proportion for any of these drugs—while 83% associate great risk with using LSD. The proportions attributing great risk to amphetamines, barbiturates, and cocaine are 65%, 68%, and 74% respectively.

- Regular use of cigarettes (i.e., one or more packs a day) is judged by the majority (61%) as entailing a great risk of harm for the user.

- Regular use of marijuana is judged to involve great risk by 63% of the sample, slightly more than judge cigarette smoking to involve great risk.

- Regular use of alcohol was more explicitly defined in several questions. Very few (22%) associate much risk of harm with having one or two drinks almost daily. More than one-third (39%) think there is great risk involved in having five or more drinks once or twice each weekend. Fully two-thirds (67%) think the user takes a great risk in consuming four or five drinks nearly every day.

- Compared with the above perceptions about the risks of regular use of each drug, many fewer respondents feel that a person runs a "great risk" of harm by simply trying the drug once or twice.

- Very few think there is much risk in using marijuana experimentally (13%) or even occasionally (21%).

- Experimental use of the other illicit drugs, however, is still viewed as risky by a substantial proportion. The percentage associating great risk with experimental use ranges from about 25% for amphetamines and barbiturates to 51% for heroin.

- Practically no one (4%) believes there is much risk involved in trying an alcoholic beverage once or twice.

Trends in Perceived Harmfulness

- Several very important trends have been taking place in recent years in these beliefs about the dangers associated with using various drugs (see Table 11 and Figures M and N).

- One of the most important trends involves marijuana (Figure M). From 1975 through 1978 there had been a decline in the harmfulness perceived to be associated with all levels of marijuana use; but in 1979, for the first time, there was an increase in these proportions —an increase which has continued fairly steadily since then. By far the most impressive increase has occurred for regular marijuana use, where there has been a full 28% jump in just four years in the proportion perceiving it as involving great risk—i.e., from 35% in 1978 to 63% in 1982. This is a dramatic change, and it has occurred during a period in which a substantial amount of scientific and media attention has been devoted to the potential dangers of heavy

TABLE 11

Trends in Perceived Harmfulness of Drugs

Q. How much do you think people risk harming themselves (physically or in other ways), if they...	Percent saying "great risk"[a]								
	Class of 1975	Class of 1976	Class of 1977	Class of 1978	Class of 1979	Class of 1980	Class of 1981	Class of 1982	Class of 1983	'82-'83 Change
Try marijuana once or twice	15.1	11.4	9.3	8.1	9.4	10.0	13.0	11.5	12.7	+1.2
Smoke marijuana occasionally	18.1	13.0	13.4	12.4	13.5	14.7	19.1	18.3	20.6	+2.3
Smoke marijuana regularly	43.3	38.6	36.4	34.9	42.0	30.4	37.6	40.4	42.8	+2.4
Try LSD once or twice	49.4	43.7	43.2	42.7	41.6	43.9	43.5	44.9	44.7	-0.2
Take LSD regularly	81.4	80.8	79.1	81.1	82.4	83.0	83.5	83.5	83.2	-0.3
Try cocaine once or twice	42.6	39.1	35.6	33.2	31.5	31.3	31.1	32.8	33.0	+0.2
Take cocaine regularly	73.1	72.9	68.2	68.2	69.5	69.2	71.2	73.0	76.3	+3.3
Try heroin once or twice	68.1	58.9	53.8	52.9	50.4	52.1	52.9	51.1	50.8	-0.3
Take heroin occasionally	79.1	73.6	71.9	71.4	70.9	70.9	72.2	69.8	71.8	+2.0
Take heroin regularly	87.2	88.6	86.1	86.6	87.5	86.2	87.5	86.0	86.1	+0.1
Try amphetamines once or twice	33.0	33.0	30.8	29.9	29.7	29.7	26.4	25.3	24.7	-0.6
Take amphetamines regularly	69.0	67.3	66.6	67.1	69.9	69.1	66.1	64.7	64.8	+0.1
Try barbiturates once or twice	36.8	32.5	31.2	31.3	30.7	30.9	28.4	27.5	27.0	-0.5
Take barbiturates regularly	69.1	67.7	66.2	68.4	71.6	72.2	69.9	67.6	67.7	+0.1
Try one or two drinks of an alcoholic beverage (beer, wine, liquor)	5.3	4.8	4.1	3.4	4.1	3.8	4.6	3.5	4.2	+0.7
Take one or two drinks nearly every day	21.5	21.2	18.5	19.6	22.6	20.3	21.6	21.6	21.6	0.0
Take four or five drinks nearly every day	63.5	61.0	62.9	63.1	66.2	63.7	64.5	65.5	66.8	+1.3
Have five or more drinks once or twice each weekend	37.8	37.0	36.7	36.5	36.9	35.9	36.3	36.0	38.6	+2.6
Smoke one or more packs of cigarettes per day	51.3	56.4	58.4	59.0	63.0	63.7	63.3	60.5	61.2	+0.7
Approx. N =	(2804)	(3223)	(3370)	(3770)	(3250)	(3234)	(3404)	(3357)	(3403)	

NOTE: Level of significance of difference between the two most recent classes: $p < .05$, $pp < .01$, $ppp < .001$.

[a]Answer alternatives were: (1) No risk, (2) Slight risk, (3) Moderate risk, (4) Great risk, and (5) Can't say, Drug unfamiliar

marijuana use. There is evidence, however, of this trend slowing down in the past two years. While there has been some upward shift in concern about the harmfulness of occasional, and even experimental, use, it has been nowhere nearly as dramatic.

- There also has been an important increase over a longer period in the number who think pack-a-day cigarette smoking involves great risk to the user (from 51% in 1975 to 64% in 1980). This shift corresponded with, and to some degree preceded, the downturn in regular smoking found in this age group (see Figure M). But in 1981 this statistic showed no further increase (presaging the end of the decline in use), and the figures for 1982 and 1983 actually show some reversal of that trend.

- For most of the other illicit drugs, the period from 1975 to 1979 marked a modest but consistent trend in the direction of fewer students associating much risk with experimental or occasional use of them (Table 11 and Figure N). Only for amphetamines and barbiturates has this trend continued beyond 1979. Otherwise, there has been little change over the last several years and, if anything, even a slight reversal of previous trends.

- The percentage who perceived great risk in trying cocaine once or twice dropped from 43% in 1975 to 31% in 1980, which generally corresponds to a period of rapidly increasing use. But perceived risk has been inching upward over the last three years. The proportion seeing great risk in regular cocaine use also dropped somewhat from 1975 to 1977 and remained fairly level until 1980; but since then it has risen about 5%. This recent increase in health concern parallels rather closely the recent leveling, and now the modest decline, in actual use. (It may be relevant that during this recent period two popular entertainment figures suffered tragic results in connection with their cocaine use.)

- In sum, there has been a sharp reversal in young people's concerns about regular marijuana use—one which began to occur in 1979—and since then there has been a more modest reversal in concerns about less frequent use of that drug and in concerns about experimenting with most other illicit drugs, as well.

- Attitudes concerning the risk associated with alcohol use at various levels have remained essentially unchanged over the past eight years.

FIGURE M

Trends in Perceived Harmfulness: Marijuana and Cigarettes

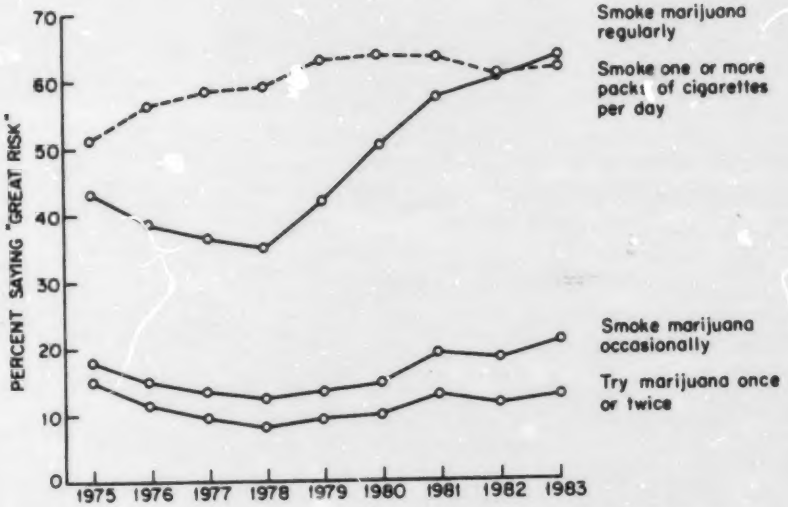
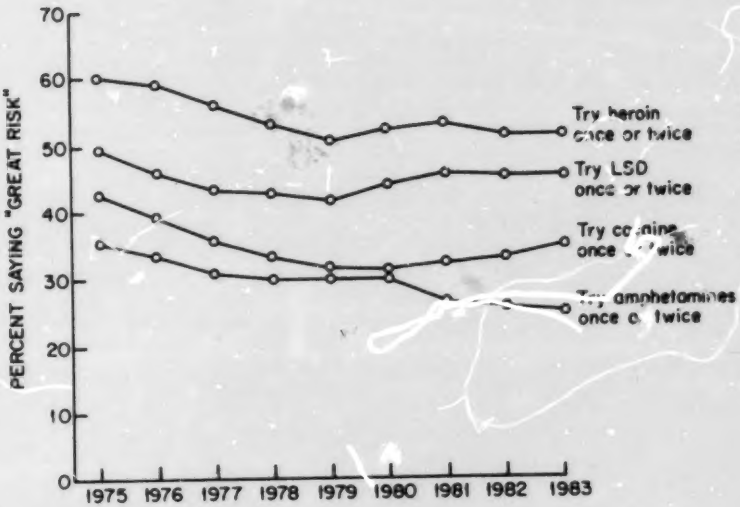


FIGURE N

Trends in Perceived Harmfulness: Other Drugs



Personal Disapproval of Drug Use

A different set of questions was developed to try to measure any general moral sentiment attached to various types of drug use. The phrasing, "Do you disapprove of people (who are 18 or older) doing each of the following" was adopted.

Extent of Disapproval in 1983

- The great majority of these students do not condone regular use of any of the illicit drugs (see Table 12). Even regular marijuana use is disapproved by 83%, and regular use of each of the other illicits receives disapproval from between 93% and 98% of today's high school seniors.

- Smoking a pack (or more) of cigarettes per day receives the disapproval of 71% of the age group.

- Drinking at the rate of one or two drinks daily also receives disapproval from nearly 70% of the seniors. A curious finding is that weekend binge drinking (five or more drinks once or twice each weekend) is acceptable to more seniors than is moderate daily drinking. While only 57% disapprove of having five or more drinks once or twice a weekend, 69% disapprove of having one or two drinks daily. This is in spite of the fact that they associate greater risk with weekend binge drinking (39%) than with the daily drinking (22%). One possible explanation for these seemingly inconsistent findings may stem from the fact that a greater proportion of this age group are themselves weekend binge drinkers rather than regular daily drinkers. They have thus expressed attitudes accepting of their own behavior, even though they may be somewhat inconsistent with their beliefs about possible consequences.

- For each of the drugs included in the question, fewer people indicate disapproval of experimental or occasional use than of regular use, as would be expected. The differences are not great, however, for the illicit drugs other than marijuana. For example, 77% disapprove experimenting with cocaine vs. 93% who disapprove its regular use.

- For marijuana, however, the rate of disapproval varies substantially for different usage habits. Less than half of all seniors (46%) disapprove trying marijuana, yet the great majority (83%) disapprove regular use.

Trends in Disapproval

- Between 1975 and 1977 there occurred a substantial decrease in disapproval of marijuana use at any level of frequency (see Table 12 and Figure O). About 14%

TABLE 12

Trends in Proportions Disapproving of Drug Use

Q. Do you disapprove of people (who are 18 or older) doing each of the following?[b]	Percent "disapproving"[a]									
	Class of 1975	Class of 1976	Class of 1977	Class of 1978	Class of 1979	Class of 1980	Class of 1981	Class of 1982	Class of 1983	'82-'83 change
Try marijuana once or twice	47.0	38.4	33.4	33.4	30.2	29.0	40.0	45.5	46.3	+0.8
Smoke marijuana occasionally	56.8	47.8	44.3	43.5	43.3	49.7	52.6	59.1	60.7	+1.6
Smoke marijuana regularly	71.9	69.5	69.5	67.5	69.2	74.6	77.4	80.6	82.5	+1.9
Try LSD once or twice	82.8	84.6	83.9	85.4	86.6	87.3	86.4	88.8	89.1	+0.3
Take LSD regularly	94.1	95.3	95.8	96.4	96.9	96.7	96.8	96.7	97.0	+0.3
Try cocaine once or twice	81.3	82.4	79.1	77.0	76.7	76.3	76.6	76.6	77.[illegible]	+0.4
Take cocaine regularly	93.3	93.9	92.1	91.9	90.8	91.1	90.7	91.5	93.2	+1.7[illegible]
Try heroin once or twice	91.5	92.[illegible]	92.[illegible]	92.0	93.[illegible]	93.5	93.5	96.6	96.3	-0.3
Take heroin occasionally	94.8	96.0	96.0	96.4	96.[illegible]	96.7	97.2	96.9	96.9	0.0
Take heroin regularly	96.7	97.3	97.2	97.8	97.9	97.6	97.8	97.5	97.7	+0.2
Try amphetamines once or twice	74.8	73.1	70.2	70.8	73.1	73.6	71.1	72.6	72.3	-0.3
Take amphetamines regularly	92.1	92.8	92.5	93.3	93.4	93.0	91.7	92.0	92.6	+0.6
Try barbiturates once or twice	77.7	81.3	81.1	82.4	84.0	83.9	82.4	84.4	83.1	-1.3
Take barbiturates regularly	92.3	93.6	93.0	94.3	94.2	93.4	94.2	94.4	95.1	+0.7
Try one or two drinks of an alcoholic beverage (beer, wine, liquor)	21.6	18.2	15.6	15.6	15.8	16.0	17.2	18.2	18.4	+0.2
Take one or two drinks nearly every day	67.6	68.9	66.8	67.7	68.3	69.0	69.1	69.9	68.9	-1.0
Take four or five drinks nearly every day	88.7	90.7	88.4	90.2	91.7	90.8	91.8	90.9	90.0	-0.9
Have five or more drinks once or twice each weekend	60.3	58.6	57.4	56.2	56.7	55.6	55.5	58.8	56.6	-2.2
Smoke one or more packs of cigarettes per day	67.5	65.9	66.4	67.0	70.3	70.8	69.9	69.4	70.8	+1.4
Approx. N =	(2677)	(3234)	(3382)	(3486)	(3221)	(3261)	(3610)	(3631)	(3341)	

NOTE: Level of significance of difference between the two most recent classes: * = .05, ** = .01, *** = .001.

[a] Answer alternatives were: (1) Don't disapprove, (2) Disapprove, and (3) Strongly disapprove. Percentages are shown for categories (2) and (3) combined.

[b] The 1975 question asked about people who are "30 or older."

fewer seniors in the class of 1977 (compared with the class of 1975) disapproved of experimenting, 11% fewer disapproved of occasional use, and 6% fewer disapproved of regular use. Since 1977, however, there has been a substantial reversal of that trend, with disapproval of experimental use having risen by 13%, disapproval of occasional use by 16%, and disapproval of regular use by 17%. These changes are continuing again this year. See Figure O.

- Until 1980 the proportion of seniors who disapproved trying amphetamines had remained extremely stable (at 75%). In 1981 there was some drop, but it did not continue in 1982 or 1983.

- During the late 1970's personal disapproval for experimenting with barbiturates had been increasing (from 78% in 1975 to 84% in 1979). Since then it has remained relatively stable.

- Over recent years disapproval for regular cigarette smoking had been increasing modestly (from 66% in 1976 to 71% in 1980). It, too, has remained fairly stable since.

- Concurrent with the increase in actual cocaine use, disapproval of experimental use of cocaine had declined somewhat, from a high of 82% in 1976 down to 75% in 1979. But in the last four years, disapproval for cocaine has leveled. (Actual use of cocaine has also leveled and even shown some signs of decline.)

- There has been relatively little change in attitudes regarding alcohol use, with two exceptions. The small minority who disapprove of trying alcohol once or twice (22% in 1975) had become even smaller by 1977 (16%). It remained relatively unchanged until 1980 (16%), but has begun to inch up since (18% in 1983). There was also a slight softening of attitudes regarding weekend binge drinking, with disapproval dropping from 60% in 1975 to 56% in 1978; since then there has been no consistent trend.

Attitudes Regarding the Legality of Drug Use

Since the legal restraints on drug use appeared likely to be in a state of flux for some time, we decided at the beginning of the study to measure attitudes about legal sanctions. Table 13 presents a statement of one set of general questions on this subject along with the answers provided by each senior class. The set lists a sampling of illicit and licit drugs and asks whether their use should be prohibited by law. A distinction is consistently made between use in public and use in private—a distinction which proved quite important in the results.

TABLE 13

Trends in Attitudes Regarding Legality of Drug Use

Q. *Do you think that people [who are 18 or older] should be prohibited by law from doing each of the following?*[b]	Percent saying "yes"[a]									
	Class of 1975	Class of 1976	Class of 1977	Class of 1978	Class of 1979	Class of 1980	Class of 1981	Class of 1982	Class of 1983	'82-'83 change
Smoke marijuana in private	32.8	27.5	26.8	25.4	28.0	28.9	35.4	36.6	37.8	+1.2
Smoke marijuana in public places	63.1	59.1	58.7	59.5	61.8	64.1	67.4	72.8	73.6	+0.8
Take LSD in private	67.2	65.1	63.3	62.7	62.4	63.8	62.6	67.1	66.7	-0.4
Take LSD in public places	83.8	81.9	79.3	80.7	81.5	82.8	80.7	82.1	82.8	+0.7
Take heroin in private	76.3	72.4	69.2	68.8	68.5	70.3	68.8	69.3	69.7	+0.4
Take heroin in public places	90.1	86.8	81.0	82.5	84.0	85.8	82.4	82.5	83.7	+1.2
Take amphetamines or barbiturates in private	37.2	33.5	32.8	32.2	33.4	34.1	32.0	33.5	32.8	-0.7
Take amphetamines or barbiturates in public places	79.6	76.1	73.7	75.8	77.3	76.1	76.2	75.5	76.7	+1.2
Get drunk in private	16.1	13.6	18.6	17.4	16.8	16.7	19.6	19.4	19.9	+0.5
Get drunk in public places	35.7	30.7	49.0	30.3	30.4	48.3	49.1	30.7	32.2	+1.5
Smoke cigarettes in certain specified public places	NA	NA	42.0	42.2	43.1	42.8	43.0	42.0	40.5	-1.5
Approx. N =	(2620)	(3265)	(3629)	(3783)	(3288)	(3226)	(3611)	(3627	(3315)	

NOTE: Level of significance of difference between the two most recent classes: s = .05, ss = .01, sss = .001.

[a] Answer alternatives were: (1) No, (2) Not sure, and (3) Yes.

[b] The 1975 question asked about people who are "20 or older."

Attitudes in 1983

- Most (74%) favor legally prohibiting marijuana use in public places, despite the fact that the majority have used marijuana themselves; but only about half as many (38%) feel that way about marijuana use in private.

- In addition, the great majority believe that the use in public of other illicit drugs than marijuana should be prohibited by law (e.g., 77% in the case of amphetamines and barbiturates, 84% for heroin).

- Fully 41% believe that cigarette smoking in public places should be prohibited by law—almost as many as think getting drunk in such places should be prohibited (52%).

- For all drugs, substantially fewer students believe that use in private settings should be illegal.

Trends in These Attitudes

- From 1975 through 1977 there was a modest decline (from 4% to 9%, depending on the substance) in the proportion of seniors who favored legal prohibition of private use of any of the illicit drugs. Now, however, the evidence suggests that these downward trends have halted and in some cases reversed.

- Over the past four years (from 1979 to 1983) there has been a sharp jump in the proportion favoring legal prohibition of marijuana use, either in private (up from 28% to 38%) or in public (up from 62% to 74%).

The Legal Status of Marijuana

Another set of questions goes into more detail about what legal sanctions, if any, students think should be attached to the use and sale of marijuana. Respondents also are asked to guess how they would be likely to react to legalized use and sale of the drug. While the answers to such a question must be interpreted cautiously, we think it worth exploring how young people think they might respond to such changes in the law. (The questions and responses are shown in Table 14.)

Attitudes and Predicted Response to Legalization: 1983

- Only about one-fifth of all seniors believe marijuana use should be entirely legal (19%). About one out of four (26%) feel it should be treated as a minor violation—like a parking ticket—but not as a crime. Another 18% indicate no opinion, leaving over one-third (37%) who feel it still should be treated as a

TABLE 14

Trends in Attitudes Regarding Marijuana Laws

(Entries are percentages)

	Class of 1975	Class of 1976	Class of 1977	Class of 1978	Class of 1979	Class of 1980	Class of 1981	Class of 1982	Class of 1983
Q. *There has been a great deal of public debate about whether marijuana use should be legal. Which of the following policies would you favor?*									
Using marijuana should be entirely legal	27.3	32.6	33.6	32.9	32.1	26.3	25.1	20.0	18.9
It should be a minor violation like a parking ticket but not a crime	23.3	29.0	31.4	30.2	30.1	30.9	29.3	28.2	26.3
It should be a crime	30.5	25.4	21.7	22.2	24.0	26.4	32.1	34.7	36.7
Don't know	16.8	13.0	13.4	14.6	13.8	16.4	15.4	17.1	18.1
N =	(2617)	(3264)	(3622)	(3721)	(3278)	(3211)	(3593)	(3615)	(3301)
Q. *If it were legal for people to USE marijuana, should it also be legal to SELL marijuana?*									
No	27.8	23.0	22.5	21.8	22.9	25.0	27.7	29.3	27.4
Yes, but only to adults	37.1	49.8	52.1	53.6	53.2	51.8	48.6	46.2	47.6
Yes, to anyone	16.2	13.3	12.7	12.0	11.3	9.6	10.5	10.7	10.5
Don't know	18.9	13.9	12.7	12.6	12.6	13.6	13.2	13.8	14.6
N =	(2616)	(3279)	(3628)	(3719)	(3280)	(3210)	(3599)	(3619)	(3300)
Q. *If marijuana were legal to use and legally available, which of the following would you be most likely to do?*									
Not use it, even if it were legal and available	53.2	50.4	50.6	46.4	50.2	53.3	55.2	60.0	60.1
Try it	8.2	8.1	7.0	7.1	6.1	6.8	6.0	6.3	7.2
Use it about as often as I do now	22.7	24.7	26.8	30.9	29.1	27.3	24.8	21.7	19.8
Use it more often than I do now	6.0	7.1	7.4	6.3	6.0	6.2	4.7	3.8	4.9
Use it less than I do now	1.3	1.5	1.5	2.7	2.5	2.6	2.5	2.2	1.5
Don't know	8.5	8.1	6.6	6.7	6.1	5.9	6.9	6.0	6.4
N =	(2602)	(3272)	(3623)	(3711)	(3277)	(3210)	(3598)	(3618)	(3296)

crime. In other words, of those expressing an opinion, a majority believe that marijuana use should not be treated as a criminal offense.

- Asked whether they thought it should be legal to sell marijuana if it were legal to use it, a majority (58%) said "yes." However, nearly all of these respondents would permit sale only to adults, thus suggesting more conservatism on this subject than might generally be supposed.

- High school seniors predict that they would be little affected by the legalization of either the sale or the use of marijuana. Fully 60% of the respondents say that they would not use the drug even if it were legal to buy and use, and another 21% indicate they would use it about as often as they do now, or less. Only 5% say they would use it more often than at present and only another 7% say they would try it. Some 6% say they do not know how they would react.

Trends in Attitudes and Predicted Responses

- Between 1976 and 1979 seniors' preferences for decriminalization or legalization remained fairly constant; but in the past four years there has been a sharp drop in the proportion favoring outright legalization (down from 32% in 1979 to 19% in 1983), while there was a corresponding increase in the proportion saying marijuana use should be a crime.

- Also reflecting the recent increased conservatism about marijuana, somewhat fewer now would support legalized sale even if use were to be made legal (down from 65% in 1979 to 58% in 1983).

- The predictions about personal marijuana use, if sale and use were legalized, have been quite similar for all nine high school classes. The slight shifts being observed are mostly attributable to the changing proportions of seniors who actually use marijuana.

THE SOCIAL MILIEU

The preceding section dealt with seniors' attitudes about various forms of drug use. Attitudes about drugs, as well as drug-related behaviors, obviously do not occur in a social vacuum. Drugs are discussed in the media; they are a topic of considerable interest and conversation among young people; they are also a matter of much concern to parents, concern which often is strongly communicated to their children. Young people are known to be affected by the actual drug-taking behaviors of their friends and acquaintances, as well as by the availability of the various drugs. This section presents data on several of these relevant aspects of the social milieu.

We begin with two sets of questions about parental and peer attitudes, questions which closely parallel the questions about respondents' own attitudes about drug use, discussed in the preceding section. Since parental attitudes are now included in the survey only intermittently, those discussed here are based on the 1979 results.

Perceived Attitudes of Parents and Friends

Perceptions of Parental Attitudes

- Based on our most recent (1979) measures of perceived parental attitudes, a large majority of seniors feel that their parents would disapprove or strongly disapprove of their exhibiting any of the drug use behaviors shown in Table 15. (The data for the perceived parental attitudes are not given in tabular form, but are displayed in Figures O and P.)

- Over 97% of seniors said that their parents would disapprove or strongly disapprove of their smoking marijuana regularly, even trying LSD or amphetamines, or having four or five drinks every day. (Although the questions did not include more frequent use of LSD or amphetamines, or any use of heroin, it is obvious that if such behaviors were included in the list virtually all seniors would indicate parental disapproval.)

- While respondents feel that marijuana use would receive the least parental disapproval of all of the illicit drugs, even experimenting with it still is seen as a parentally disapproved activity by the great majority of the seniors (85%). Assuming that the students are generally correct about their parents' attitudes, these results clearly show that there remains a rather massive generational difference of opinion about this drug.

TABLE 15

Trends in Proportion of Friends Disapproving of Drug Use

Q. *How do you think your close friends feel (or would feel) about you...*	Adjustment Factor	Percent saying friends disapprove[a] Class of 1975[b]	Class of 1976	Class of 1977[b]	Class of 1978	Class of 1979[b]	Class of 1980	Class of 1981	Class of 1982	Class of 1983	'82-'83 change
Trying marijuana once or twice	(-0.6)	44.3	NA	41.8	NA	40..	42.6	46.4	50.3	52.0	+1.7
Smoking marijuana occasionally	(+0.6)	56.8	NA	49.0	NA	48.8	50.6	55.9	57.4	59.9	+2.5
Smoking marijuana regularly	(+4.6)	76.0	NA	69.1	NA	70.8	72.0	75.0	76.7	77.6	+2.9b
Trying LSD once or twice	(+3.0)	86.6	NA	88.6	NA	87.8	87.4	86.5	87.8	87.8	0.0
Trying an amphetamine once or twice	(+3.8)	78.8	NA	80.3	NA	81.0	78.9	78.4	75.7	76.8	+1.1
Taking one or two drinks nearly every day	(+7.8)	67.3	NA	71.0	NA	71.0	70.5	69.5	71.9	71.7	-0.2
Taking four or five drinks every day	(+0.3)	38.3	NA	88.1	NA	88.6	87.9	86.4	86.6	86.0	-0.6
Having five or more drinks once or twice every weekend	(+4.7)	66.2	NA	63.4	NA	61.3	50.6	50.3	51.2	50.6	-0.6
Smoking one or more packs of cigarettes per day	(+0.3)	83.8	NA	88.3	NA	73.4	74.4	73.8	70.3	72.2	+1.9
Approx. N =		(2988)	(NA)	(2971)	(NA)	(2716)	(2766)	(3120)	(3024)	(2722)	

NOTE: NA indicates question not asked.

[a] Answer alternatives were: (1) Not disapprove, (2) Disapprove, and (3) Strongly disapprove. Percentages are shown for categories (2) and (3) combined.

[b] These figures have been adjusted by the factors reported in the first column because of lack of comparability of question-context among administrations. (See text for discussion.)

- Also likely to be perceived as rating high parental disapproval (around 92% disapproval) are occasional marijuana use, taking one or two drinks nearly every day, and pack-a-day cigarette smoking.

- Slightly lower proportions of seniors (83%) think their parents would disapprove of their having five or more drinks once or twice every weekend. This happened to be exactly the same percentage as said that their parents would disapprove of simply experimenting with marijuana.

- There is no reason to think that parental attitudes have softened in the intervening period. If anything the opposite seems more likely to be the case, given the rising public concern about marijuana and cocaine and the burgeoning parents' movement against drugs.

Current Perceptions of Friends' Attitudes

- A parallel set of questions asked respondents to estimate their friends' attitudes about drug use (Table 15). These questions ask "How do you think your close friends feel (or would feel) about you ...." The highest levels of disapproval are associated with heavy daily drinking (86% think friends would disapprove), trying LSD (88%), and trying an amphetamine (77%). Presumably, if heroin were on the list it would receive the highest peer disapproval; and, judging from respondents' own attitudes, barbiturates and cocaine would be roughly as unpopular among peers as amphetamines.

- A substantial majority think their friends would disapprove if they smoked marijuana regularly (78%), or smoked a pack or more of cigarettes daily (72%).

- While heavy drinking on weekends is judged by half (51%) to be disapproved by their friends, most (72%) think consumption of one or two drinks daily would be disapproved.

- Majorities feel that their friends would disapprove of occasional marijuana smoking (60%) and trying marijuana once or twice (52%).

- In sum, peer norms differ considerably for the various drugs and for varying degrees of involvement with those drugs, but overall they tend to be quite conservative. The great majority of seniors have friendship circles which do not condone use of the illicit drugs other than marijuana, and three-fourths feel that their friends would disapprove of regular marijuana use. In fact, over half of them now believe their friends would disapprove their even trying marijuana.

A Comparison of the Attitudes of Parents, Peers, and Respondents Themselves

- A comparison of the perceptions of friends' disapproval with perceptions of parents' disapproval shows several interesting things.

- First there is rather little variability among different students in their perceptions of their parents' attitudes: on any of the drug behaviors listed nearly all say their parents would disapprove. Nor is there much variability among the different drugs in perceived parental attitudes. Peer norms vary much more from drug to drug. The net effect of these facts is likely to be that peer norms have a much greater chance of explaining variability in the respondent's own individual attitudes or use than parental norms, simply because the peer norms vary more.

- Despite there being less variability in parental attitudes, the ordering of drug use behaviors is much the same for them as for peers (e.g., among the illicit drugs asked about, the highest frequencies of perceived disapproval are for trying LSD, while the lowest frequencies are for trying marijuana).

- A comparison with the seniors' own attitudes regarding drug use (see Figures O and P) reveals that on the average they are much more in accord with their peers than with their parents. The differences between seniors' own disapproval ratings and those attributed to their parents tend to be large, with parents seen as more conservative overall in relation to every drug, licit or illicit. The largest difference occurs in the case of marijuana experimentation, where only 46% say they disapprove but 85% said in 1979 that their parents would.

Trends in Perceptions of Parents' and Friends' Views

- Several important changes in the perceived attitudes of others have been taking place recently—and particularly among peers. These shifts are presented graphically in Figures O and P. As can be seen in those figures, adjusted (dotted) trend lines have been introduced before 1980. This was done because we discovered that the deletion in 1980 of the questions about parents' attitudes—which up until then had immediately preceded friends' attitudes in the questionnaire—removed an artifactual depression of the answers on friends' use, a phenomenon known as a question-context effect. This effect was particularly evident in the trend lines dealing with alcohol use, where an abrupt upward shift occurred in 1980 in otherwise smooth lines. It appears that when questions

about parents' attitudes were present, respondents tended to understate peer disapproval in order to emphasize the difference in attitudes between their parents and their peers. In the adjusted lines, we have attempted to correct for that artifactual depression in the 1975, 1977, and 1979 scores.* We think the adjusted trend lines give a more accurate picture of the change taking place. For some reason, the question-context effect seems to have more influence on the questions dealing with cigarettes and alcohol than on those dealing with illicit drugs.

- For each level of marijuana use—trying once or twice, occasional use, regular use—there had been a drop in perceived disapproval for both parents and friends up until 1977 or 1978. We know from our other findings that these perceptions correctly reflected actual shifts in the attitudes of their peer groups—that is, that acceptance of marijuana was in fact increasing among seniors (see Figure O). There is little reason to suppose such perceptions are less accurate in reflecting shifts in parents' attitudes. Therefore, we conclude that the social norms regarding marijuana use among adolescents had been relaxing before 1979. However, consistent with the seniors' reports about their own attitudes, there has been a sharp reversal in peer norms, and it continues this year.

- Until 1981 there had been relatively little change in either self-reported or perceived peer attitudes toward amphetamine use, but in 1981 both measures showed significant and parallel dips in disapproval (as use rose sharply). Since then disapproval has been easing back up toward the earlier levels.

- Perceived parental norms regarding most drugs other than marijuana showed little or no change (between

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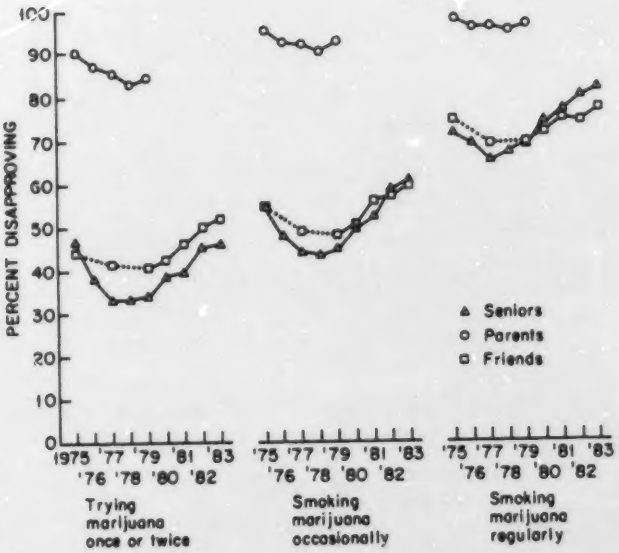
*The correction evolved as follows: We assumed that a more accurate estimate of the true change between 1979 and 1980 could be obtained by taking an average of the changes observed in the year prior and the year subsequent, rather than by taking the observed change (which we knew to contain the effect of a change in question content). We thus calculated an adjusted 1979-1980 change score by taking an average of one half the 1977-1979 change score (our best estimate of the 1978-79 change) plus the 1980-1981 change score. This estimated change score was then subtracted from the observed change score for 1979-1980, the difference being our estimate of the amount by which peer disapproval of the behavior in question was being understated because of the context in which the questions occurred prior to 1980. The 1975, 1977, and 1979 observations were then adjusted upward by the amount of that correction factor. (Table 15 shows the correction factors in the first column.)

FIGURE O

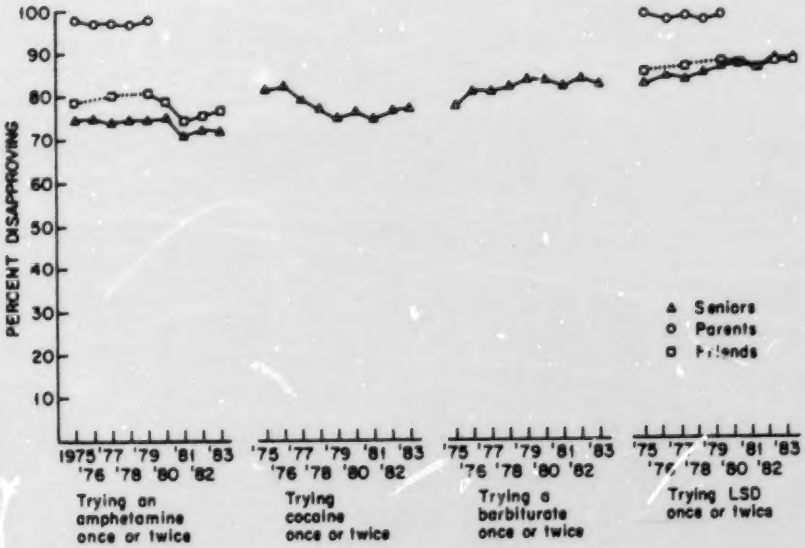
Trends in Disapproval of Illicit Drug Use
Seniors, Parents, and Peers



NOTE: Points connected by dotted lines have been adjusted because of lack of comparability of question-context among administrations. (See text for discussion.)

FIGURE O (cont.)

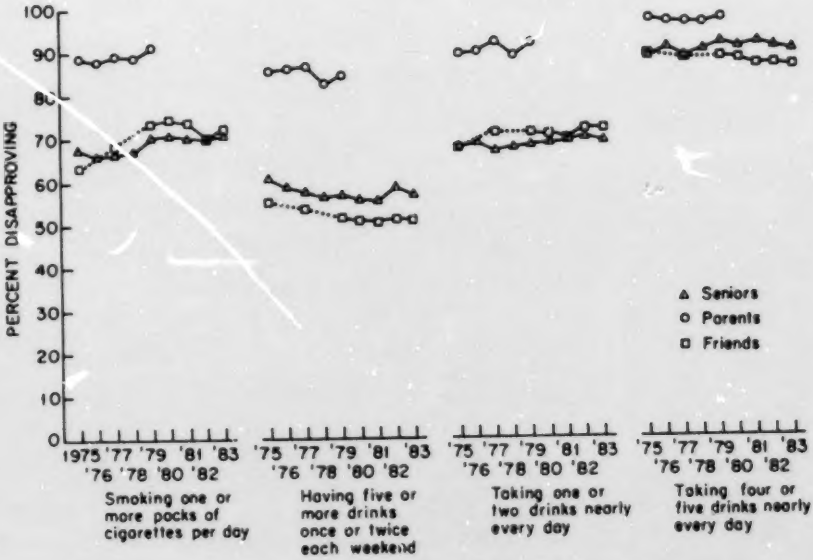
Trends in Disapproval of Illicit Drug Use
Seniors, Parents, and Peers



NOTE: Points connected by dotted lines have been adjusted because of lack of comparability of question-context among administrations. (See text for discussion.)

FIGURE P

Trends in Disapproval of Licit Drug Use
Seniors, Parents, and Peers



NOTE: Points connected by dotted lines have been adjusted because of lack of comparability of question-context among administrations. (See text for discussion.)

1975 and 1979, where data are available); peer norms for LSD have been quite stable since 1975.

- Certainly one of the largest changes in perceived peer norms has occurred in relation to regular cigarette smoking. The proportion of seniors saying that their friends would disapprove of them smoking a pack-a-day or more rose from 64% (adjusted version) in 1975 to 74% in 1980. Since then, however, peer norms regarding smoking have remained relatively level or even eased back a percent or two.

- For alcohol, perceived peer norms have moved pretty much in parallel with seniors' statements about their personal disapproval. Heavy daily drinking is seen as remaining disapproved by the great majority. Weekend binge drinking showed some modest decline in disapproval up through 1980. Since then it has remained virtually level.

Exposure to Drug Use by Friends and Others

It is generally agreed that much of youthful drug use is initiated through a peer social-learning process; and research has shown a high correlation between an individual's illicit drug use and that of his or her friends. Such a correlation can, and probably does, reflect several different causal patterns: (a) a person with friends who use a drug will be more likely to try the drug; (b) conversely, the individual who is already using a drug will be likely to introduce friends to the experience; and (c) one who is already a user is more likely to establish friendships with others who also are users.

Given the potential importance of exposure to drug use by others, we felt it would be useful to monitor seniors' association with others taking drugs, as well as seniors' perceptions about the extent to which their friends use drugs. Two sets of questions, each covering all or nearly all of the categories of drug use treated in this report, asked seniors to indicate (a) how often during the past twelve months they were around people taking each of the drugs to get high or for "kicks," and (b) what proportion of their own friends use each of the drugs. (The questions dealing with friends' use are shown in Table 16. The data dealing with direct exposure to use may be found in Table 17.) Obviously, responses to these two questions are highly correlated with the respondents' own drug use; thus, for example, seniors who have recently used marijuana are much more likely to report that they have been around others getting high on marijuana, and that most of their friends use it.

Exposure to Drug Use in 1983

- A comparison of responses about friends' use, and about being around people in the last twelve months who were using various drugs to get high, reveals a high degree of correspondence between these two indicators of exposure. For each drug, the proportion of respondents saying "none" of their friends use it is

fairly close to the proportion who say that during the last twelve months they have not been around anyone who was using that drug to get high. Similarly, the proportion saying they are "often" around people getting high on a given drug is roughly the same as the proportion reporting that "most" or "all" of their friends use that drug.

- Reports of exposure and friends' use closely parallel the figures on seniors' own use (compare Figures A and Q). It thus comes as no surprise that the highest levels of exposure involve alcohol; a majority (60%) say they are "often" around people using it to get high. What may come as a surprise is that fully 31% of all seniors say that most or all of their friends go so far as to get drunk at least once a week. (This is consistent, however, with the fact that 41% said they personally had taken five or more drinks in a row at least once during the prior two weeks.)

- The drug to which students are next most frequently exposed is marijuana. Some 26% are "often" around people using it to get high, and another 26% are exposed "occasionally." Only about one in four (24%) reports no exposure during the year.

- Amphetamines, the most widely used class of illicit drugs other than marijuana, is also the one to which seniors are next most often exposed. Nearly half of all seniors (46%) have been around someone using them to get high over the past year, and 10% say they are "often" around people doing this.

- For the remaining illicit drugs there are far lower rates, with any exposure to use in the past year ranging from 33% for cocaine, down to 5% for heroin.

- More than two of every five seniors (42%) report no exposure to illicit drugs other than marijuana.

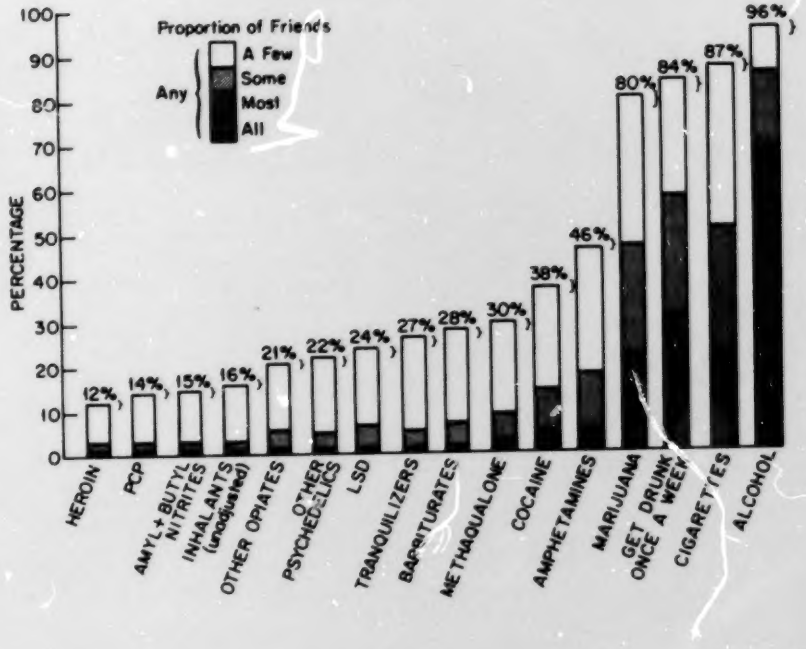
- Regarding cigarette smoking, it is interesting to note that only one in every four or five seniors (22%) report that most or all of their friends smoke.

Recent Trends in Exposure to Drug Use

- During the two-year interval from 1976 to 1978, seniors' reports of exposure to marijuana use increased in just about the same proportion as percentages on actual monthly use. In 1979 both exposure to use and actual use stabilized; and since 1979 both have been dropping. The proportion saying they are often around people using marijuana dropped from 39% in 1979 to 26% in 1983—a drop of one-third in the past four years.

FIGURE Q

Proportion of Friends Using Each Drug as Estimated by Seniors, in 1983



- Cocaine had a consistent increase from 1976 to 1979 in the proportions exposed to users. Since 1979, there has been a slight drop in exposure to use coinciding with the slight drop in self-reported use.

- Over the last four years there have been statistically significant decreases in exposure to others (including close friends) using tranquilizers, and psychedelics other than LSD (including PCP) which coincide with continued declines in the self-reported use of these classes of drugs.

- There also had been a gradual decrease in exposure to barbiturates and LSD from 1975 through 1980. However, exposure to the use of both of these drugs then plateaued for two years, as did the usage figures. Both drugs have shown further decline in use since 1981, and both have now resumed their decline in exposure to use.

- Trend data are only available since 1979 on friends' use of PCP or the nitrites. For both drugs, exposure to friends' use has dropped significantly between 1979 and 1983. Only half as many seniors in 1983 (14%) said any of their friends used PCP than said that in 1979 (28%). The comparable drop for nitrites was from 22% to 15%.

- The proportion having some friends who used amphetamines rose from 41% to 51% between 1979 and 1982—paralleling the sharp increase in reported use over that period. The proportion saying they were around people using amphetamines "to get high or for kicks" also jumped substantially between 1980 and 1982 (by 9%) but fell back 5% this year (as actual use is observed to decline).*

- Between 1978 and 1981 methaqualone use rose, as did the proportion of seniors saying some of their friends used. A decline in use started in 1982 and accelerated in '83, and in '83 there was a 6% drop in seniors reporting that any of their friends used quaaludes (from 36% to 30%).

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*This latter finding was important, since it indicated that a substantial part of the increase observed in self-reported amphetamine use was due to things other than simply an increase in the use of over-the-counter diet pills or stay-awake pills, which presumably are not used to get high. Obviously more young people were using stimulants for recreational purposes. There still remained the question, of course, of whether the active ingredients in those stimulants really were amphetamines.

TABLE 16

Trends in Proportions of Friends Using Drugs

(Entries are percentages)

Q. *How many of your friends would you estimate...*	Class of 1975	Class of 1976	Class of 1977	Class of 1978	Class of 1979	Class of 1980	Class of 1981	Class of 1982	Class of 1983	'82-'83 change
Smoke marijuana										
% saying none	17.0	17.1	19.1	13.9	12.4	13.6	17.0	15.6	19.7	+4.1ss
% saying most or all	30.3	30.6	32.3	35.3	35.5	31.3	27.7	23.8	21.7	-2.1
Use inhalants										
% saying none	75.7	81.4	81.1	80.0	80.9	82.2	83.5	81.6	83.9	+2.3s
% saying most or all	1.1	1.1	1.0	1.1	1.1	1.2	0.9	1.3	1.1	-0.2
Use nitrites										
% saying none	NA	NA	NA	NA	78.4	81.0	82.6	82.5	85.5	+3.0ss
% saying most or all	NA	NA	NA	NA	1.9	1.3	1.2	0.9	0.7	-0.2
Take LSD										
% saying none	63.5	69.4	68.1	70.1	71.1	71.9	71.5	72.2	76.0	+3.8ss
% saying most or all	2.7	2.8	3.0	2.0	1.9	1.8	2.2	2.4	1.4	-1.0s
Take other psychedelics										
% saying none	58.8	69.7	68.6	70.8	71.8	71.8	73.7	74.4	77.9	+3.5ss
% saying most or all	4.7	3.0	2.8	2.0	2.2	2.2	2.1	1.9	1.6	-0.3
Take PCP										
% saying none	NA	NA	NA	NA	72.2	77.8	82.8	82.7	85.8	+3.1ss
% saying most or all	NA	NA	NA	NA	1.7	1.6	0.9	0.9	1.1	+0.2
Take cocaine										
% saying none	66.4	71.2	69.9	66.8	61.1	58.4	59.9	59.3	62.4	+3.1s
% saying most or all	3.4	3.2	3.6	4.0	6.0	6.1	6.3	4.9	5.1	+0.2
Take heroin										
% saying none	89.8	86.4	87.1	85.7	87.1	87.0	87.5	86.8	88.0	+2.0s
% saying most or all	0.7	0.8	0.7	0.9	0.5	1.0	0.5	0.7	0.8	+0.1
Take other narcotics										
% saying none	71.2	73.9	76.3	76.8	76.9	77.6	76.9	76.1	79.2	+3.1s
% saying most or all	2.1	2.2	1.7	1.4	1.5	1.7	1.5	1.4	1.4	0.0
Take amphetamines										
% saying none	49.0	57.8	58.7	59.3	59.3	56.1	51.2	49.4	53.9	+4.5ss
% saying most or all	5.9	5.6	4.1	4.7	4.3	4.8	6.4	5.4	5.1	-0.3
Take barbiturates										
% saying none	55.0	63.7	65.3	67.5	69.3	69.5	68.9	68.7	71.7	+3.0s
% saying most or all	4.3	3.3	3.0	2.3	2.1	2.6	2.1	1.8	1.7	-0.1

(Table continued on next page)

TABLE 16 (cont.)

Trends in Proportions of Friends Using Drugs

(Entries are percentages)

Q. *How many of your friends would you estimate...*	Class of 1975	Class of 1976	Class of 1977	Class of 1978	Class of 1979	Class of 1980	Class of 1981	Class of 1982	Class of 1983	'82-'83 change
Take quaaludes										
% saying none	68.3	73.0	71.7	73.0	72.3	67.5	65.0	64.5	70.7	+5.8ss
% saying most or all	3.0	1.8	2.9	2.2	2.8	3.6	3.6	2.6	2.6	0.0
Take tranquilizers										
% saying none	58.4	63.7	62.2	65.2	68.0	70.3	70.5	70.1	73.3	+3.2s
% saying most or all	3.5	3.1	2.7	1.8	2.0	1.9	1.4	1.1	1.2	+0.1
Drink alcoholic beverages										
% saying none	3.3	4.9	5.6	5.1	4.6	3.9	3.3	4.3	4.5	+0.2
% saying most or all	68.4	64.7	66.2	68.9	68.5	68.9	67.7	69.7	69.0	-0.7
Get drunk at least once a week										
% saying none	17.6	19.3	19.9	18.0	16.7	16.9	18.2	16.9	16.1	-0.8
% saying most or all	30.1	26.6	27.6	30.2	32.0	30.1	29.4	29.9	31.0	+1.1
Smoke cigarettes										
% saying none	4.8	6.3	6.3	6.9	7.9	9.4	11.5	11.7	13.0	+1.3
% saying most or all	41.5	36.7	33.9	32.2	28.6	25.3	22.4	20.1	22.4	-1.7
Approx. N =	(2640)	(2929)	(3184)	(3247)	(2933)	(2987)	(3307)	(3303)	(3095)	

NOTES: Level of significance of difference between the two most recent classes:
s = .05, ss = .01, sss = .001.

NA indicates data not available.

TABLE 17

Trends in Exposure to Drug Use

(Entries are percentages)

Q. *During the LAST 12 MONTHS how often have you been around peop'e who were taking each of the following to get high or for "kicks"?*	Class of 1975	Class of 1976	Class of 1977	Class of 1978	Class of 1979	Class of 1980	Class of 1981	Class of 1982	Class of 1983	'82-'83 change
Marijuana										
% saying not at all	NA	20.5	19.0	17.3	17.0	18.0	19.8	22.1	23.8	+1.7
% saying often	NA	32.5	37.0	39.0	38.9	33.8	33.1	28.0	26.1	-1.9
LSD										
% saying not at all	NA	78.8	80.0	81.9	81.9	82.8	82.6	83.9	86.2	+2.3s
% saying often	NA	2.2	2.0	1.8	2.0	1.4	2.0	1.9	1.4	-0.5
Other psychedelics										
% saying not at all	NA	76.5	76.7	76.7	77.6	79.6	82.4	83.2	86.9	+3.7sss
% saying often	NA	3.1	3.2	2.9	2.2	2.2	2.0	2.6	1.1	1.5sss
Cocaine										
% saying not at all	NA	77.0	73.4	69.8	69.0	62.3	63.7	65.1	66.7	+1.6
% saying often	NA	3.0	3.7	4.6	6.8	5.9	6.6	6.6	5.2	-1.4s
Heroin										
% saying not at all	NA	91.4	90.3	91.8	92.4	92.6	93.4	92.9	94.9	+2.0ss
% saying often	NA	0.8	1.1	0.9	0.7	0.4	0.6	1.0	0.7	-0.3
Other narcotics										
% saying not at all	NA	81.9	81.3	81.8	82.0	80.4	82.5	81.5	82.7	+1.2
% saying often	NA	1.8	2.4	2.0	1.7	1.7	1.7	2.4	2.2	-0.2
Amphetamines										
% saying not at all	NA	39.6	40.3	40.9	38.1	39.2	50.5	49.8	53.9	+0.1ss
% saying often	NA	6.8	7.9	6.7	7.4	8.3	12.1	12.3	10.1	-2.2s
Barbiturates										
% saying not at all	NA	69.0	70.0	73.5	73.6	76.8	79.1	76.3	77.5	+3.2s
% saying often	NA	4.5	5.0	3.4	3.3	3.4	4.0	4.3	3.0	-1.3s
Tranquilizers										
% saying not at all	NA	67.7	66.0	67.5	67.5	70.9	71.0	73.4	76.5	+3.1s
% saying often	NA	5.5	6.3	4.9	4.3	3.2	4.2	3.5	2.9	-0.6
Alcoholic beverages										
% saying not at all	NA	6.0	5.6	5.5	5.2	5.3	6.0	6.0	6.0	0.0
% saying often	NA	57.1	60.8	60.8	61.2	60.2	61.0	59.3	60.2	+0.9
Approx. N =	(NA)	(3249)	(3579)	(3682)	(3253)	(3239)	(3608)	(3645)	(3334)	

NOTES: Level of significance of difference between the two most recent classes:
s = .05, ss = .01, sss = .001.

NA indicates data not available.

- The proportion saying that "most or all" of their friends smoke cigarettes dropped steadily between 1976 and 1981, from 37% to 22%. (During this period actual use dropped markedly, and more seniors perceived their friends as disapproving regular smoking.) Since 1981, friends' use (as well as self-reported use) has remained stable.

- The proportion saying most or all of their friends get drunk at least once a week had been increasing steadily, from 27% in 1976 to 32% in 1979—a period when the prevalence of binge drinking was rising slightly. Since then there has been a slight fall-off of perhaps one or two percent. But without question, what remains the most impressive fact here is that nearly a third of all high school seniors (31% in 1983) say that most or all of their friends get drunk at least once a week!

- Coincident with the sharp drop in cigarette smoking behavior between 1977 and 1981 was an equally sharp drop in the proportion of seniors who said that most or all of their close friends smoked (from 34% to 22%) and a sharp increase in the proportion saying they had no close friends who smoked (from 6% to 12%). As would be expected from the usage rates, there has been little further change since 1981.

Implications for Validity of Self-Reported Usage Questions

- We have noted a high degree of correspondence in the aggregate level data presented in this report among seniors' self-reports of their own drug use, their reports concerning friends' use, and their own exposure to use. Drug-to-drug comparisons in any given year across these three types of measures tend to be highly parallel, as do the changes from year to year.* We take this consistency as additional evidence for the validity of the self-report data, and of trends in the self-report data, since there should be less reason to distort answers on friends' use, or general exposure to use, than to distort the reporting of one's own use.

Perceived Availability of Drugs

One set of questions asks for estimates of how difficult it would be to obtain each of a number of different drugs. The answers range across

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*Those minor instances of non-correspondence may well result from the larger sampling errors in our estimates of these environmental variables, which are measured on a sample size one-fifth the size of the self-reported usage measures.

five categories from "probably impossible" to "very easy." While no systematic effort has been undertaken to assess directly the validity of these measures, it must be said that they do have a rather high level of face validity—particularly if it is the subjective reality of "perceived availability" which is purported to be measured. It also seems quite reasonable to us to assume that perceived availability tracks actual availability to some extent.

Perceived Availability in 1983

- There are substantial differences in the reported availability of the various drugs. In general, the more widely used drugs are reported to be available by the highest proportion of the age group, as would be expected (see Table 18 and Figure R).

- Marijuana appears to be almost universally available to high school seniors; some 86% report that they think it would be "very easy" or "fairly easy" for them to get—roughly 30% more than the number who report ever having used it.

- After marijuana, the students indicate that the psychotherapeutic drugs are the most available to them: amphetamines are seen as available by 69%, tranquilizers by 55%, and barbiturates by 53%.

- Less than half of the seniors (43%) see cocaine as available to them.

- LSD, other psychedelics, and opiates other than heroin are reported as available by only about one of every three or four seniors (31%, 27%, and 30%, respectively).

- Heroin is seen by the fewest seniors (19%) as being easy to get.

- The majority of "recent users" of nearly all drugs—those who have illicitly used the drug in the past year—feel that it would be easy for them to get that same type of drug. (Data not shown here.) The one exception is heroin, for which only 43% of the small number of recent users on the relevant questionnaire form thought they could easily get more.

- There is some further variation by drug class, however. Most (from 79% to 96%) of the recent users of marijuana, cocaine, amphetamines, barbiturates, and tranquilizers feel they could get those same drugs easily. Smaller majorities of those who used LSD (67%) or other opiates (66%) feel it would be easy for them to get those drugs again.

TABLE 18

Trends in Reported Availability of Drugs

Q. *How difficult do you think it would be for you to get each of the following types of drugs, if you wanted some?*	Percent saying drug would be "Fairly easy" or "Very easy" for them to get[a]									
	Class of 1975	Class of 1976	Class of 1977	Class of 1978	Class of 1979	Class of 1980	Class of 1981	Class of 1982	Class of 1983	'82-'83 change
Marijuana	87.8	87.4	87.9	87.8	90.1	89.0	89.2	88.5	86.2	-2.3s
LSD	46.2	37.4	34.5	32.2	34.2	35.3	35.0	34.2	30.9	-3.3s
Some other psychedelic	47.8	35.7	33.8	33.8	34.6	35.0	32.7	30.6	26.6	-4.0ss
Cocaine	37.0	34.0	33.0	37.8	45.5	47.9	47.5	47.4	43.1	-4.3ss
Heroin	24.2	18.4	17.9	16.4	18.9	21.2	19.2	20.8	19.3	-1.5
Some other narcotic (including methadone)	34.5	26.9	27.8	26.1	28.7	29.4	29.6	30.4	30.0	-0.4
Amphetamines	67.8	61.8	58.1	58.5	59.9	61.3	60.5	70.8	68.5	-2.3
Barbiturates	60.0	54.4	52.4	50.6	49.8	49.1	54.9	55.2	52.5	-2.7
Tranquilizers	71.8	65.5	64.9	64.3	61.4	59.1	60.8	58.9	55.3	-3.6s
Approx. N =	(2627)	(3163)	(3562)	(3598)	(3172)	(3240)	(3578)	(3602)	(3385)	

NOTE: Level of significance of difference between the two most recent classes: s = .05, ss = .01, sss = .001.

[a]Answer alternatives were: (1) Probably impossible, (2) Very difficult, (3) Fairly difficult, (4) Fairly easy, and (5) Very easy.

Trends in Perceived Availability

- Last year there was no major change in the perceived availability of any of these drugs. This year nearly all showed some decline.

- Marijuana, for the first time since the study was begun in 1975, showed a small but statistically significant decline in perceived availability (down 2.3% to 86.2%).

- Amphetamines showed a full 11% jump in availability between 1979 and 1982; but availability dropped back by 2% in 1983.

- The perceived availability of barbiturates also jumped about 6% between 1980 and 1982, but dropped back nearly 3% in 1983.

- Between 1977 and 1980 there had been a substantial (15%) increase in the perceived availability of cocaine (see Figure R and Table 18). Among recent cocaine users there also was a substantial increase observed over that three year interval (data not shown). There was no further change after 1980 until this year, when a 4.3% drop occurred.

- The availability of tranquilizers declined steadily between 1978 and 1980, held steady for two years, and then declined significantly again in 1983 (down 3.6% to 55%).

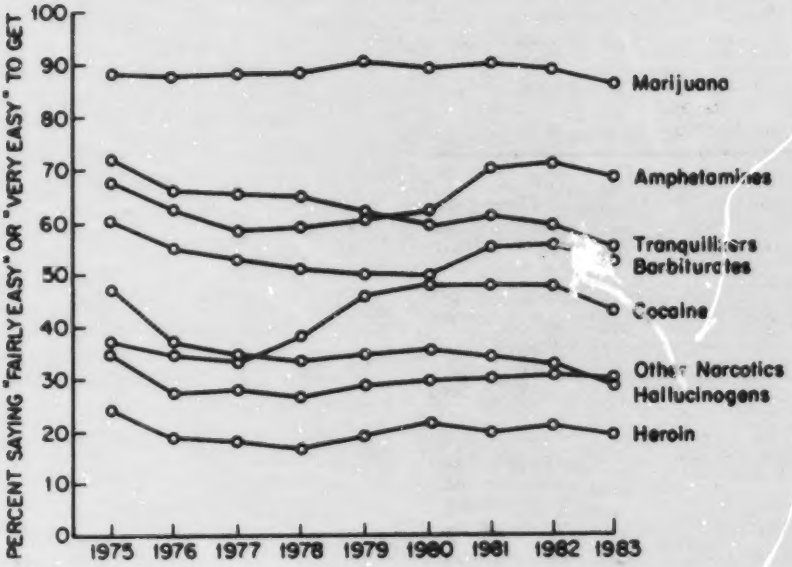
- LSD and the other psychedelics, taken as a class, also were reported as available to fewer seniors in the Class of 1983 than in the Class of '82. In the case of the other psychedelics, availability has now dropped from a peak level of 48% in 1975 to 27% in 1983.

- There is no evidence of any systematic change in the perceived availability of either heroin or the other opiates.

- All these trends are similar among recent users except that the availability of tranquilizers did not change significantly.

FIGURE R

Trends in Perceived Availability of Drugs



OTHER FINDINGS FROM THE STUDY

Each year we present additional recent findings from the Monitoring the Future study in this section. Sometimes these have been published elsewhere; however, the two sections included here—on the use of non-prescription stimulants and daily marijuana use—represent original analyses.

The Use of Non-Prescription Stimulants

As is discussed elsewhere in this report, between 1979 and 1981 we observed a substantial increase in reported stimulant use by high school students. We had reason to believe that a fair part of that increase was attributable to non-prescription stimulants of two general types—"look-alike" drugs (pseudo-amphetamines, usually sold by mail order, which look like, and have names which sound like, real amphetamines) and over-the-counter stimulants (primarily diet pills and stay-awake pills). These drugs usually contain caffeine, ephedrine, and/or phenylpropanolamine as their active ingredients.

In the 1982 survey we introduced new questions on some questionnaire forms in order to more accurately assess the use of amphetamines as well as to assess the use of the "look-alikes," diet pills, and stay-awake pills of the non-prescription variety. For example, on one of the five questionnaire forms respondents were asked to indicate on how many occasions (if any) they had taken non-prescription diet pills such as Dietac, Dexatrim, and Prolamine (a) in their lifetime, (b) in the prior twelve months, and (c) in the prior thirty days. (These correspond to the standard usage questions asked for all drugs.) Similar questions were asked about non-prescription stay-awake pills (such as No-Doz, Vivarin, Wake, and Caffedrine) and the "look-alike" stimulants. (The latter were described at some length in the actual question.)

On three of the five questionnaire forms respondents were also asked about their use of prescription amphetamines, with very explicit instructions to exclude the use of over-the-counter and "look-alike" drugs. These questions yielded the data described in this volume as "stimulants, adjusted." Here we will refer to them as "amphetamines, adjusted," to distinguish them more clearly from the non-amphetamine stimulants.

Prevalence of Use in 1983

- Table 19 gives the prevalence levels for these various classes of stimulants. As can be seen, a substantial proportion of students (31%) have used over-the-counter diet pills and 10% have used them in just the past month. Some 1.0% are using them daily.

- Very similar proportions are using actual amphetamines (adjusted): 27% lifetime, 9% monthly, and 0.8% daily prevalence.

TABLE 19

Various Stimulants: Trends in Lifetime, Annual, and 30-Day Prevalence by Sex

	Diet Pills			Stay-Awake Pills			Look-Alikes		
	Class of 1982	Class of 1983	'82-'83 change	Class of 1982	Class of 1983	'82-'83 change	Class of 1982	Class of 1983	'82-'83 change
Lifetime Prevalence									
Total	29.6	31.4	+1.8	19.1	20.4	+1.3	15.1	14.8	-0.3
Males	16.5	17.4	+0.9	20.2	22.3	+2.1	13.6	14.2	+0.6
Females	42.2	44.8	+2.6	16.9	18.2	+1.3	15.1	14.4	-0.7
Annual Prevalence									
Total	20.3	20.3	0.0	11.8	12.3	+0.5	10.8	9.4	-1.4
Males	10.7	10.6	-0.1	12.8	13.8	+1.0	9.3	9.2	-0.3
Females	29.5	30.0	+0.5	10.0	10.5	+0.5	10.7	8.6	-2.1
30-Day Prevalence									
Total	9.8	9.5	-0.3	5.5	5.3	-0.2	5.6	5.2	-0.4
Males	5.0	4.9	-0.1	6.0	5.5	-0.5	4.9	4.5	-0.4
Females	14.0	13.7	-0.3	4.7	4.5	-0.2	5.2	5.4	+0.2

NOTE: Level of significance of difference between the two most recent classes: ^{s} = .05, ^{ss} = .01, ^{sss} = .001.

- Only about half as many students are knowingly using the "look-alikes" as are using diet pills or amphetamines (adjusted): 15% lifetime, 5% monthly, and 0.4% daily prevalence. Of course, it is probable that some proportion of those who think they are getting real amphetamines have actually been sold "look-alikes," which are far cheaper for drug dealers to purchase.

- Stay-awake pills have also been used by a fair number of students: 20% lifetime, 5% monthly, and 0.3% daily prevalence.

- The revised questions on amphetamine use yielded prevalence estimates in 1983 which were about one-quarter to one-third lower than the original version of the question, indicating that the distortion in the recent unadjusted estimates was due to the inclusion of some non-prescription stimulant use.

Subgroup Differences

- Figure 5 shows the prevalence figures for these drug classes for males and females separately. It can be seen that the use of diet pills is dramatically higher among females than among males. In fact, the absolute prevalence levels for females are impressively high, with some 45% reporting some experience with them and 14%—or one in every seven females—reporting use in just the last month. For all other stimulants the prevalence rates for both sexes are fairly close.

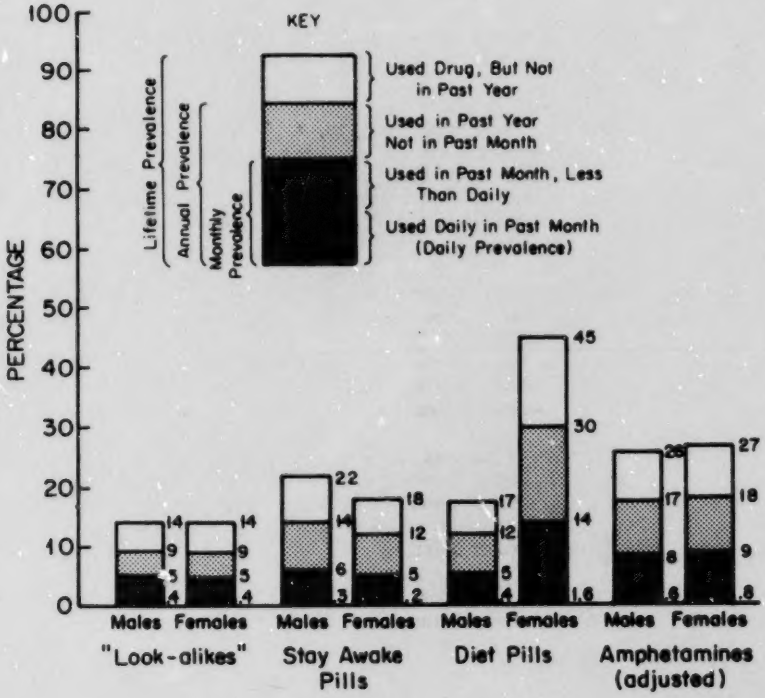
- A similar comparison for those planning four years of college (referred to here as the "college-bound"), and those who are not, shows some differences as well (data not shown). As is true for the controlled substances, use of the "look-alikes" is lower among the college-bound. For example, the annual prevalence figures for the college-bound vs. the non-college-bound respectively are 6% vs. 12% for the "look-alikes".

  There are smaller differences in use of diet pills; annual prevalence is 19% for the college-bound and 21% for the non-college-bound. Use of stay-awake pills is actually slightly higher for the college-bound: annual prevalence is 13% vs. 11% for the non-college-bound.

- There are not any dramatic regional differences in the use of the non-prescription stimulants, although the North Central region does tend to have the highest levels, particularly for "look-alike" use (data not shown). The annual prevalence for the "look-alikes" is 12% in the North Central vs. 9% in the Northeast, and

FIGURE 5

Prevalence and Recency of Use, by Sex
Amphetamines and Non-Prescription Stimulants, Class of 1983



8% in the South and West. The "stay-awake" pills are also used most widely in the North Central (with an annual prevalence of 17% vs. 12% in the West, 11% in the South, and 10% in the Northeast).

- The use of all of the non-prescription stimulants (i.e., diet pills, stay-awake pills, and "look-alikes") is substantially higher among those who have had experience with the use of illicit drugs than among those who have not, and highest among those who have become most involved with illicit drugs (data not shown). Less than 1% (0.9%) of those who have abstained from any illicit drug use report ever using a "look-alike" stimulant.

Trends in Use

- Because these questions were new in 1982, trends can be directly assessed for only a one-year interval.

- However, it is worth noting that the 1982 and 1983 figures for amphetamines (adjusted) are higher than the unadjusted figures for all years prior to 1981. (See Tables 6 through 9.) This suggests that there was indeed an increase in amphetamine use between 1979 and 1981—or at least an increase in what, to the best of the respondent's knowledge, were amphetamines.

- In recent years, there have been increased legislative and law enforcement efforts to curb the manufacture and distribution of "look-alike" pills. Perhaps as a result, the use of these pills decreased slightly (though not statistically significantly) from 1982 to 1983; for example, annual prevalence went from 10.8% to 9.4%.

- Use of both classes of over-the-counter stimulants showed a slight increase in lifetime prevalence, no change in annual prevalence, and a very slight drop in monthly prevalence, perhaps reflecting a very recent increased rate of quitting.

- Subgroup differences in trends for the most part reflect the overall trends.

The Use of Marijuana on a Daily Basis

In past reports in this series, we summarized a number of findings regarding daily marijuana users, including what kind of people they are, how use changes after high school for different subgroups, and what daily users see to be the negative consequences of their use.* In 1982 a special question segment was introduced into the study in one of the five questionnaire forms in order to secure more detailed measurement of individual patterns of daily use. More specifically, respondents were asked (a) whether if at any time during their lives they had ever used marijuana on a daily or near-daily basis for at least a month and, if so, (b) how recently they had done that, (c) when they first had done it, and (d) how many total months they had smoked marijuana daily, cumulating over their whole lifetime.

Lifetime Prevalence of Daily Use

- Current daily use, defined as use on twenty or more occasions in the past thirty days, has been fluctuating widely over the past eight years, as we know from the trend data presented earlier in this report. It rose from 6.0% among seniors in 1975 to 10.7% in 1978, then down to 5.5% in 1983.

- For the Classes of 1982 and 1983, we have found the lifetime prevalence of daily use for a month or more to be far higher than current daily use —e.g., at 16.8% or one in every six seniors in 1983. In other words, the proportion who describe themselves as having been daily or near-daily users at some time in their lives, is three times as high as the number of current daily users. However, we believe it very likely that this ratio has changed dramatically over the life of the study as a result of the large secular trends in daily use. Therefore, it would be inaccurate to extrapolate to the Class of 1978, for example, and deduce that their lifetime prevalence of daily use was three times their 10.7% current use figure. (An investigation of data from a follow-up panel of the Class of 1978 confirms this assertion.)

  Utilizing data collected in 1983 from follow-up panels from the earlier graduating Classes of 1976 through

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*For the original reports see the following, which are available from the author: L. Johnston, "The Daily Marijuana User," paper delivered at the first annual meeting of the National Alcohol and Drug Coalition, Washington, D.C. September 18, 1980; and L. Johnston, "A review and Analysis of Recent Changes in Marijuana Use by American Young People" and "Frequent Marijuana Use: Correlates, possible effects, and reasons for using and quitting," papers delivered to conferences of the American Council on Marijuana on December 4 and May 4, 1981, respectively.

1982, we find that the lifetime prevalence of daily marijuana use for these recent graduates (ranging in age from about 19 to 25) is 24%.

Grade of First Daily Use

- Of those seniors who were daily users at some time, almost two-thirds (66%, or 11% of all seniors) began that pattern of use before tenth grade. However, the secular trends in daily use must be recalled. Active daily use reached its peak among seniors in 1978, when this 1983 graduating class was in seventh grade. Thus we are confident that different graduating classes show different age-associated patterns.

- By the end of grade ten nearly all who were to become daily users by the end of high school had done so (85% of the eventual daily users). The percentages of all daily users who started use in each grade level is presented in Table 20.

Recency of Daily Use

- Nearly two-thirds (64%) of those who report ever having been daily marijuana users (for at least a one month interval) have smoked that frequently in the past year to year-and-a-half, while one-third (36% of them say they last used that frequently "about two years ago" or longer. On the other hand, only 28% of all users (or 4.7% of the entire sample) say they have used daily or almost daily in the past month (the period for which we define current daily users). The fact that only 4.7% of the entire sample report themselves to be current daily users, versus the 5.5% estimate given earlier in this report, suggests that some students have a more stringent definition of "daily or near-daily use" than the operational one used in this report (i.e., use on twenty or more occasions during the past month).

Duration of Daily Use

- It seems likely that the most serious long-term health consequences associated with marijuana use will be directly related to the duration of heavy use. Thus a question was introduced which asks the cumulative number of months the student has smoked marijuana daily or nearly daily. While hardly an adequate measure of the many different possible cross-time patterns of use—a number of which may eventually prove to be important—it does provide a gross measure of the total length of exposure to heavy use.

- Table 20 gives the distribution of answers to this question. It shows that almost two-thirds (59%) of

TABLE 20

Responses to Selected Questions on Daily Marijuana Use by Subgroup

	Total	Sex		4-year college plans		Region				Urbanicity		
		M	F	Yes	No	NE	NC	S	W	Large urban	Other urban	Non-urban
How old were you when you first smoked marijuana or hashish that frequently?												
Grade 6 or earlier	1.7	2.1	0.6	1.0	1.5	2.1	1.6	1.2	2.6	2.5	1.4	1.8
Grade 7 or 8	5.8	6.8	3.7	3.9	6.9	6.7	6.4	4.0	6.9	7.8	6.1	3.9
Grade 9 (Freshman)	3.6	3.2	4.0	2.1	5.1	3.1	4.4	3.1	4.4	3.4	4.7	2.5
Grade 10 (Sophomore)	3.2	3.2	3.1	1.7	4.5	3.9	2.0	2.7	4.8	3.4	3.8	2.0
Grade 11 (Junior)	2.0	2.0	1.9	1.7	2.2	4.0	1.3	1.1	2.4	2.7	1.8	1.9
Grade 12 (Senior)	0.5	0.8	0.1	0.6	0.1	0.7	0.1	0.7	0.2	0.2	0.6	0.6
Never used daily	83.2	81.9	86.5	89.3	79.7	79.4	84.1	87.3	78.6	80.0	81.8	87.9
N =	(3360)	(1573)	(1623)	(1772)	(1208)	(770)	(955)	(1087)	(527)	(849)	(1387)	(1104)
How recently did you use marijuana or hashish on a daily, or almost daily, basis for at least a month?												
During the past month	6.7	5.8	2.7	1.9	6.3	6.1	3.9	4.2	5.2	6.4	4.6	3.5
2 months ago	1.3	1.3	0.7	1.3	0.9	1.6	1.2	0.8	1.7	1.6	1.2	1.1
3 to 9 months ago	2.3	2.3	2.0	1.0	3.6	2.0	2.6	2.2	2.4	1.3	2.7	2.3
About 1 year ago	2.5	2.5	2.6	2.0	3.0	3.3	2.0	2.4	2.6	2.9	2.9	1.9
About 2 years ago	3.6	3.3	3.6	2.3	4.6	4.3	3.6	1.6	6.5	4.9	4.0	2.2
3 or more years ago	2.4	2.6	2.0	2.0	2.1	2.9	2.3	1.5	3.1	3.0	2.7	1.9
Never used daily	83.2	81.9	86.5	89.3	79.7	79.4	84.1	87.3	78.6	80.0	81.8	87.9
N =	(3330)	(1571)	(1619)	(1770)	(1204)	(766)	(952)	(1082)	(524)	(846)	(1382)	(1103)
Over your whole lifetime, during how many months have you used marijuana or hashish on a daily or near-daily basis?												
Less than 3 months	6.7	6.7	6.7	3.7	5.2	5.7	6.8	2.7	6.8	5.1	5.1	3.7
3 to 9 months	3.3	3.8	2.5	2.2	4.3	4.6	2.3	2.5	5.6	5.1	3.1	2.5
About 1 year	1.9	1.7	1.8	1.1	2.7	2.2	2.0	2.1	1.0	2.0	2.1	1.5
About 1 and ½ years	0.9	1.0	0.7	0.6	0.9	0.3	0.9	0.9	1.4	0.7	1.2	0.7
About 2 years	2.4	3.0	1.2	1.4	3.1	2.7	2.6	1.6	2.8	2.9	3.0	1.1
About 3 to 5 years	3.0	3.3	1.9	1.4	3.2	4.2	3.0	2.4	2.7	3.3	3.1	2.4
6 or more years	0.4	0.5	0.6	0.1	0.9	0.3	0.3	0.5	1.3	0.6	0.4	0.8
Never used daily	83.2	81.9	86.5	89.3	79.7	79.4	84.1	87.3	78.6	80.0	81.8	87.9
N =	(3334)	(1570)	(1623)	(1771)	(1206)	(768)	(953)	(1086)	(527)	(845)	(1387)	(1103)

NOTE: Entries are percentages which sum vertically to 100%.

those with daily use experience have used "about one year" or less cumulatively—at least by the end of twelfth grade. In fact, over one-fourth (28%) have used less than three months cumulatively.

- On the other hand, one-third (36%, or 6% of all seniors) have used "about two years" or more cumulatively on a daily or near-daily basis.

Subgroup Differences

- There is some sex-difference in the proportion having ever been a daily user—18% for males and 14% for females—and there is also some difference in their age at onset, with the males tending to start earlier on the average. And, among the daily users, the cumulative duration of use is distinctly longer for the males, which accounts for the large male-female difference in current daily use.

- Whether or not the student has college plans is strongly related to lifetime prevalence of daily use, as well as to current prevalence. Of those planning four years of college, 11% had used daily compared with 20% of those without such plans. And the college-bound users show a distinctly shorter cumulative duration of use, with a lower proportion of them still using daily. Nevertheless, among those in each group who did use daily, the age-at-onset pattern is fairly similar.

- There are some large regional differences in lifetime prevalence of daily use, all consistent with those found for current daily use. The West and Northeast are highest, with 20% to 21% having used daily at some time, the South lowest with 13%, and the North Central is in the middle—at 16%.

- The subgroup differences associated with urbanicity are likewise similar to those found for current daily use. Lifetime prevalence of daily marijuana use is 20% in the large cities, 18% in the smaller cities, and 13% in the non-urban areas.

Trends in the Use of Marijuana on a Daily Basis

- Compared to the class of 1982, significantly fewer seniors in the class of 1983 describe themselves as having been daily or near daily users of marijuana at some time in their lives (21% vs. 17%) (Table 21).

- The decline is stronger among females (from 18% in 1982 to 14% in 1983) than among males (20% to 18%).

- Both the college-bound and non-college-bound groups declined between 1982 and 1983.

TABLE 21

Trends in Daily Use of Marijuana in Lifetime by Subgroups

	Percent ever used			Percent reporting first use prior to tenth grade		
	Class of 1982	Class of 1983	'82-'83 change	Class of 1982	Class of 1983	'82-'83 change
All seniors	20.5	16.8	-3.7ss	13.1	11.1	-2.0s
Sex:						
Male	20.1	18.1	-2.0	12.9	12.1	-0.8
Female	18.0	13.5	-4.5ss	11.5	8.3	-3.2s
College Plans:						
None or under 4 yrs	22.5	20.3	-2.2	14.2	13.5	-0.7
Complete 4 yrs	13.8	10.5	-3.3s	8.2	6.5	-1.7
Region:						
Northeast	25.1	20.4	-4.7	17.3	11.9	-5.4s
North Central	21.1	15.9	-5.2s	13.3	12.4	-0.9
South	15.7	12.7	-3.0	9.3	8.3	-1.0
West	20.8	21.4	+0.6	12.6	13.9	+1.3
Population Density:						
Large SMSA	23.8	20.0	-3.8	15.6	13.7	-1.9
Other SMSA	20.3	18.2	-2.1	12.5	12.0	-0.5
Non-SMSA	17.9	12.6	-5.3ss	11.7	8.2	-3.5s

NOTES: Level of significance of difference between the two most recent classes:
s = .05, ss = .01, sss = .001.

- Of the four regions, only the West did not show any decline; it was unchanged at 21%. The Northeast declined from 25% to 20%, the North Central region dropped from 21% to 16%, and the South went from 16% to 13%.

- All three population density levels showed declines.

- The trends in daily use of marijuana at earlier grade levels parallel very closely the trends in lifetime prevalence (see Table 21).

Other Data on Correlates and Trends

Hundreds of correlates of drug use, without accompanying interpretation, may be found in the series of annual volumes from the study entitled Monitoring the Future: Questionnaire Responses from the Nation's High School Students.* For each year since 1975, a separate hardbound volume presents univariate and selected bivariate distributions on all questions contained in the study. Many variables dealing explicitly with drugs—variables not discussed here—are contained in that series; and bivariate tables are provided for all questions each year distributed against an index of lifetime illicit drug involvement. A special cross-time reference index is contained in each volume to facilitate locating the same question across different years. One can thus derive trend data on some 1500 to 2000 variables for the entire sample, or for important sub-groups (based on sex, race, region, college plans, or drug involvement).

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*This series is available from the Publications Division, Institute for Social Research, The University of Michigan, Ann Arbor, Michigan 48109.